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N. S. DAVIS, M.D., EDITOR.

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ARTICLE XIV.

REPORT ON THE SANITARY CONDITION OF THE CITY OF CHICAGO, AND THE PREVALENCE OF DISEASES FROM OCTOBER 1ST, 1867, TO APRIL 1ST, 1868.

BY N. S. DAVIS, M.D., Member of Sanitary Committee.

Since the date of my last report to this Society, no diseases of a strictly epidemic character have been prevalent in this city. The meteorological conditions have been less variable, the extremes of heat and cold less, and the wet or rainy days less than the average of winter and spring months in this locality.

The small-pox has continued to find victims amongst our heterogeneous population, in numbers sufficient to materially increase the aggregate mortality. The deaths from this disease were, in October, 20; November, 18; January, 39; February, 33; March, 37.

In the efforts made by those acting under the direction of the Board of Health and others, to stop the further prevalence of this disease by vaccination, two errors appear to have been committed in some instances. The first was, in not exercising due care in the selection and preservation of the vaccine used. It is certain that an unusually large number of cases have been

followed by bad results, such as large phagadænic ulcers, cellular abscesses, and persistent eruptions, both pustular and vesicular. In two children who came under my care, the vaccine pustules had been accompanied by the most intense inflammation, ending in gangrene, and the formation of foul ulcers extending half the circumference of the arm, with a very serious degree of constitutional disturbance. Four others that I saw, had very extensive ulcerations, but without gangrene. A few days since, a gentleman, past the middle period of life, called at my office to consult me about his arm. He had been vaccinated in early life, the cicatrix of which was still visible. Five or six weeks since, he had been re-vaccinated. It produced a moderate-sized pustule, which matured in the usual time and cicatrized, leaving nothing unusual in the scar. In about one week after the vaccine sore had healed, an eruption began to appear on the arm, in the vicinity of the vaccine scar, and has continued to the present time. The eruption presents two forms: one is pustular, presenting much the shape and size of the larger pustules of acne, and very painful; the other is vesicular, of the size of pemphigus, filled with a sero-sanguinolent fluid. Nearly all the eruptions had a dark purple color at the base, reminding one of syphilide. New pustules and vesicles had continued to appear from time to time, but were all located on the vaccinated arm between the shoulder and the elbow, except a single pustule which had appeared on the opposite arm. This patient denied ever having had syphilis in any form; neither had he been subject to cutaneous eruptions. None of the patients to whom I have alluded here, were vaccinated by myself, and I know nothing of the history of the vaccine matter used. From the reports and rumors on this subject, I think the bad results here alluded to have been sufficiently numerous to materially increase the prejudices against vaccination, in the minds of many of our citizens.

Such results can only be accounted for in three ways: First, by supposing the vaccine virus to have been taken from persons who were previously infected with syphilis or some other infectious disease. Second, by supposing that the vaccine virus,

though from pure and healthy subjects, had been so used as to undergo a putrefactive change, by which it had acquired the properties of a purulent infection. Might not this occur either from allowing the scab to be put up *too* moist, or still more by repeatedly, at different times, wetting and using from the same virus kept between two plates of glass. In this way, virus that had been productive of perfect results with many of the past cases vaccinated, might, in subsequent ones, prove bad. Third, by supposing the existence, in the individual vaccinated, of some latent constitutional disease, which the vaccine only serves to excite into activity. This is, doubtless, the true explanation of a large number of the cases.

The second error to which I have alluded, consists in a general neglect to examine the cases vaccinated at suitable intervals during the progress of the vaccine. Hundreds of those vaccinated are never examined after the operation is performed. If all the profession would make it a rule to examine carefully the vesicular stage of the vaccine sores, very many spurious cases would be detected and remedied, and some bad results, by a little treatment, would be greatly mitigated. Everything relating to vaccination should receive more systematic attention from the profession than is usually given to it.

Rubeola, or measles, has also continued unusually prevalent during the last four months. And, among the poorer classes especially, pneumonia has been a very frequent complication or sequel. In young children, the pneumonia has supervened insidiously in the lobular form, and proved fatal in a large proportion of the cases. From my own observations, I think the fatality has been greatly increased from the two following causes: First, a large proportion of the community no sooner suppose the child to have measles than they wrap it in thick blankets, keep the room inordinately hot, stop all ventilation, and industriously ply it with hot stimulating drinks, for the purpose of getting out and keeping out the eruption. A more cruel or injurious practice could not readily be devised. Second, during the active progress of the measles, the pneumonic or broncho-pneumonic symptoms are not distinguished from the

ordinary catarrhal symptoms that belong to the eruptive fever, and hence no danger is apprehended, and in many instances no physician is called until the latter has completed its course and the patient is found still becoming worse instead of recovering. The physician now finds the lungs hepatized and the vitality of the little sufferer so far exhausted that no remedies will avail. An examination of the monthly bills of mortality shows the following results: from measles, in October, 4; November, 8; January, 21; February, 24; March, 21. From pneumonia, in October, 11; November, 19; January, 49; February, 54; March, 28. These figures are much above the average from these diseases. Thus in the same months of 1866 and 1867, the returns were as follows: from measles, in October, 6; November, 1; January, 0; February, 0; March, 1. From pneumonia, in October, 3; November, 13; January, 11; February, 20; March, 12.

In relation to the prevalence of other diseases, we have observed nothing requiring special mention. There have been occasional cases of scarlet fever and diphtheria, and the usual prevalence of catarrhal and rheumatic affections. During the latter part of the continuous cold weather of January, attacks of meningitis, convulsions, and croup were more frequent. During the months of February and March, I have met with cases of diarrhœa and dysentery more frequently than is usual in those months. These, together with the peculiarly oppressive qualities of the atmosphere during the two or three warm days that occurred in the first starting of the frost and ice in the last of February, have caused me to look with some anxiety in reference to a return of epidemic cholera the coming summer.

The weekly and monthly reports of the Board of Health have led many to suppose that the past year has been unusually healthy in this city. This has been done by comparing the mortality of each month in 1867 with the corresponding month in 1866. The year 1866, as is well known, was characterized by a special epidemic of cholera, which added nearly 1000 to the gross mortality of that year, and hence does not afford a proper standard of comparison in reference to the ordinary

ratio of mortality. If we compare the ratio of mortality in 1867 with that of 1865, when no special epidemic was prevalent, it will afford a much better test and show very different results. Thus, the aggregate mortality for 1865 was 3663, the population 185,000, making the ratio 1 death to 50 of the population. The aggregate mortality of 1867 was 4604, the population 230,000, making the ratio 1 death to 49 of the population. This will be found fully up to the average ratio for the last 10 years.

In respect to the sanitary condition of the South Division of the city, which I represent, and, indeed, of all the Divisions of the city, there are visible simply the following improvements over past years, namely: fewer heaps of ashes and garbage, especially in the central parts of the city, and a somewhat less number of heaps of stable manure. The institution of a scavenger system, imperfect and irregular as it is, has materially lessened the winter accumulations of the kind just named; still manure heaps of respectable age are abundant in all parts of the city. Full out-door privies are still more abundant; and even ditches obstructed by both ashes and garbage are not wanting. The point of vital importance to the sanitary welfare of our city, however, seems to be almost overlooked or neglected. I allude to the overflow and thorough saturation of the soil during the spring, with water holding in solution all the products derived from macerating manure heaps, contents of privies, etc., and disappearing chiefly by evaporation so as to leave in the soil all the animal and vegetable matter previously held in solution, in a condition admirably adapted to undergo decomposition and evolve into the air a variety of actively poisonous products so soon as the higher temperature of summer is brought to bear on it. Were it not for this source of mischief, our wide streets swept freely by the winds from the lake and the prairie, would render Chicago one of the healthiest cities in our country. There are, however, at this time (April 1st), notwithstanding all the improvements made during the past year, whole sections of the city, closely inhabited, the soil of which is completely saturated and partially covered with

standing water, and over which are scattered a sufficient number of manure heaps and open privies to thoroughly impregnate the whole with both animal and vegetable matter. During the succeeding two months of cool weather, the excess of water will evaporate, leaving the animal and vegetable residue in precisely such a condition as is most favorable for the evolution of miasms, sporules, and fungi under the high temperature of July and August.

It is in vain to expect any marked or permanent improvement in the health of the city while such a state of things exists. The removal of ashes and garbage, and the sweeping of a few central streets, is all proper and necessary; but it has comparatively little effect on the health of the citizens. There may be some who think the great evil of stagnant surface water, in large parts of the city, is unavoidable, on account of the low and level character of the surface. This is true, however, only to a limited extent; for the larger number of the very worst places are fully accessible to surface drainage into good permanent sewers already constructed. Take, for instance, that part of the North Division lying between North Market Street and the North Branch of the river, and south of Division Street, large portions of which are now either overflowed or fully saturated with standing water. The middle and rear part of the lots fronting directly on sewered streets are, in very many instances, so covered with water that the stable and the privy are like islands, accessible only by planks or boards. And yet nothing is wanting, to relieve the whole, except one or two hours of labor in opening suitable channels to the street gutter.

In visiting some patients on Townsend, Bremer, and Wesson Streets two or three days since, I found the rear part of nearly all the lots fronting on these streets saturated with stagnant water and thoroughly impregnated with the contents of privies and stable refuse, and the street gutters full. On further examination, I found nearly all the inlets of the Chicago Avenue and other sewers in that region more or less obstructed. Six good laborers armed with hoe, spade, and axe, under the direc-

tion of a man of intelligence and common-sense, could have relieved the whole of that territory of its surface water in two days, and left it in such a condition that the subsequent showers of spring would have washed and aided in purifying the surface instead of macerating it for weeks, and returning into the air loaded with miasms.

In visiting a patient yesterday, at 605 West Lake Street, a few rods west of Union Park, I had occasion to pass the rear end of the lot. I found, not only the rear end of that lot, but the alley, and as far as I could see along the adjoining lots, more or less covered with standing water well impregnated with animal and vegetable matters. Yet, in the centre of Lake Street, directly in front of the whole block, was a good brick sewer, on such a level as to be capable of draining the whole, if there had been any side gutters leading into it. Scores of similar instances might be pointed out in the south and southwest parts of the city, but these are sufficient for illustration.

My principal object in calling the attention of the Society to this subject, is to urge the exertion of its entire influence in accomplishing the two following items:

First. The adoption by the Boards of Health and of Public Works, of proper ordinances requiring the owner or occupant of every lot in the city, to so connect its surface with the adjoining street gutters that all water falling upon any part of such surface shall have an unobstructed access to such street gutters.

Second. The adoption and rigid enforcement of a rule, that on the first breaking up of winter, which is generally the last week in February or the first in March, a sufficient force of laborers, under the direction of a suitable number of intelligent overseers, shall be employed to clear all obstructions, of whatever kind, from the entrances to the sewers, and from the street and alley and lot gutters.

By having the work done promptly, *at the time indicated*, it would not only prevent the long retention of the water belonging to the first spring freshet, impregnated with the accumulations of winter, but it would render every subsequent spring

shower a cleansing and purifying agent. It would cost no more to employ a sufficient number of men to do all the required work in ten days, at the exact season when it is of the highest degree of sanitary importance, than it would to keep a small number at work during the whole season, and have three-quarters of the work done so late in the season as to lose nearly all its value, in a sanitary aspect.

If our Board of Health shall continue much longer to keep a large number of sub-officials employed in making sanitary inspections, and gathering statistics to cumber the shelves of its office, and leave the most important part of all its sanitary work undone, or done so late in the season as to be of little practical value, it is certain that the great mass of tax-payers will soon begin to regard the whole machinery as a useless pecuniary burden. Every practising physician should feel an interest in maintaining an efficient system of sanitary regulations, and the accurate registry of statistics of births, marriages, and deaths. And it is from no desire to find fault with the present Board of Health, that I have called your attention to the foregoing topics, but from an ardent desire to aid in rendering its work more efficient and timely in the prevention of sickness and death.

ARTICLE XV.

THE SULPHITES IN ZYMOTIC DISEASES.

By P. G. KELSEY, M.D.

An Extract from an Essay read before the Allen Co. Medical Association, held at Fort Wayne, Ind., April 7th, 1868.

* * * * The use of the sulphites and hyposulphites in the treatment of zymotic diseases has attracted considerable attention of late, on the part of the profession, and very worthily I think, and having tested their virtues to some extent in my own practice with happy results, I will, with your permission, cite a few cases by way of testimony. I shall, at

present, refer more especially to the use of the *sulphite of soda* in variola, and not to detain you by indulging in a *preamble*, referring to authority, etc., I will give you the cases at once.

CASE I. E. S., soldier, home on furlough, *æt* 23, was taken sick March 11th, 1864, with fever, severe headache, cough, and pain in chest, which he supposed was the result of exposure before coming home. Was not aware of any exposure to *small-pox* and, of course, did not expect it. I was called the following day to see him, and the third day thereafter a bountiful eruption, of an unmistakable character, decided all questions of doubt, the entire body being covered as completely with the eruption of *variola* as it well could be, and the disease maintain the distinct form. During the first three days of the eruption, until it reached the vesicular stage, the usual course of treatment was followed. But on the *fourth* day of the eruption, at the suggestion of my then colleague but former excellent preceptor, Dr. Terry, who had noticed some account of its use, I commenced the use of the sulphite of soda, using the following formula:

℞. Soda sulphis,---------- ℥iv.
Syr. Glycyrr.,---------- ℥iij.
Aqua,---------- ℥j.
M.

Of this mixture I ordered a teaspoonful every four hours, and with the result of rendering my patient far more comfortable in every particular, and apparently modifying the disease quite a considerable in the following 24 hours. Notwithstanding the advanced stage of the disease at the time of commencing this treatment, I am certain that through some agency the attack, which at the outset had presented the appearance of a severe case, though retaining the distinct form, was rendered comparatively mild and the pustular stage considerably shortened, some of the later vesicles aborting without going on to suppuration, so that my patient escaped with only a moderate pitting.

CASE II. Though not next in order in my diary, yet, from its relation to the foregoing case, I will next give that of an

infant, female, which was in the house and exposed to the above case. The child was but six weeks old at the time of exposure, from which fact, together with that that the disease is not generally considered as easily communicable during the primary stages, I refrained from vaccinating the babe, although this was promptly attended to with all other inmates of the household, who were, also, immediately sent away, save one lady, a sister-in-law, who remained to attend to the young man. Since all escaped without contracting the disease, you can imagine my surprise when the babe was brought back completely covered with small-pox eruption from the crown of its head to the soles of its feet, both inclusive, so that there was not a spot on the child's body where you could rest the end of your finger without touching a pock. For two days the child's mouth was so bad that it nursed with difficulty, but aside from this, as a general thing, it nursed well and bore its affliction with remarkable ease and quietude, and passed through the severe ordeal of the suppurative stage of small-pox, which so severely taxes the strength and vitality of the adult, making a good and rapid recovery, and with only a few marks of any extent. The only medicine I gave the child was the *sulphite of soda* in the syrup of glycyrr., and a little sweet spirits of nitre for the fever. Now, I believe the cases which terminate favorably in such young infants—from six to eight weeks old—are comparatively rare; and whether this child owes its life to the soda or an unusual amount of vitality is, of course, not for me to say.

Case III. J. N., farmer, German, *æt.* about 30, was taken very sick with the measles, March 13, 1864, and sent for me the following day upon the appearance of the eruption, and upon seeing him I found that what the friends and neighbors had looked upon as measles was, in reality, *confluent small-pox*, and of no moderate pretensions. This man was unfortunate in securing for a nurse a man who did not believe in medicine for small-pox, and who presumed to take the treatment into his own hands, much to the detriment of the patient; for, upon my discovering the fact, and causing a return to my remedy, with

increased dose, he again became more comfortable. This man was delirious and entirely blind for *five days*, and could take no nourishment aside from a little gruel or broth, but he made a good recovery, carrying, however, the lasting evidence of his "change of doctors," as he believes. Three of his children, aged *one*, *three*, and *five* years, who proved insusceptible to vaccination, had varioloid or variola, as you please. They took the soda as a prophylactic, and were not confined to the bed at all, paying but little heed to the disease.

During this spring (1864) I treated, in all, twelve or thirteen cases of variola and varioloid, using this remedy, and all with favorable results; gaining quite a reputation as a "small-pox doctor," although I did not pretend to make a *specialty* of it; and my confidence in the sulphite of soda, as a valuable remedy in such cases, increased with each additional test.

Dr. Terry also used these preparations in the treatment of typhoid fever, erysipelas, and other like diseases, during my association with him, and speaks highly of them as remedial agents. One case of hospital gangrene, attended by him, is not without interest:

A soldier was wounded in the battle of Chickamauga, with a minie ball, just below the instep of the left foot, the ball passing transversely across the foot. He was treated in the hospital at Chattanooga until the following March, when he was discharged—up to which time we have no history of the case. When discharged, the surgeon in charge not only despaired of saving the foot, but also his life, and advised and urged immediate amputation. His father, however, determined to bring him home first, and, upon their arrival, immediately sent for Dr. Terry, to amputate the foot. I will give the Doctor's own language: "On my first visit, I found the patient emaciated almost to a skeleton; skin dry and husky; pulse 140 per minute; foot and leg intensely swollen and œdematous, with a large gangrenous ulcer involving the whole dorsum of the foot, with thick, indurated, and shelving edges, the gangrene dissolving the tissues beneath, and emitting a most intolerable odor. The treatment for some time had been flaxseed poultice to the ulcer,

with quinine, iron, and whiskey internally. I prevailed upon the parents to defer the operation a few days, while I made an effort to save the limb, and also to satisfy myself whether the boy had recuperative power sufficient to react and survive the operation. I cauterized the gangrenous parts with *potassa fusa*, continued the poultice, and also sprinkled the surface with the *sulphite of lime;* continued the general treatment, adding *sulphite of soda* internally. In three days the offensive odor was entirely gone. The eschar separated kindly, and gangrene reappeared, subsequently, but once, yielding readily to the caustic, leaving a healthy granulating surface." This patient made a good recovery, the wound keeping pace with the improvement of his general health, until, in six weeks, it was entirely healed, and the young man walked on both his feet again, instead of one. This much for conservative surgery.

I could add many other cases, in which I have seen good result from the administration of the sulphites, but time will not permit at present, and I have already occupied your attention quite long enough. A case of typhoid fever now under treatment, has, I think, been greatly benefited by the soda—the delirium passing off, mind becoming clear, fever abating, and tongue becoming moist and soft under its influence. But the results of this case are still in the future. The patient had taken the emulsion of turpentine with beneficial results, but the delirium continued until the administration of the preparation of soda, but this *may* have been incidental.

As to the treatment of variola, if Dr. Tanner's ideas are correct, with regard to all drugs heretofore used, and the sulphite of soda will prove an exception, then it is indeed a blessing at hand. He says: "The less drugs are used in the treatment of small-pox, the better; since they will neither shorten the disease, nor exert any favorable influence upon the eruption." He also pronounces the *Sarracenia purpurea*, or pitcher plant, a failure. From my experience, I feel confident that the *sulphite of soda* not only shortened the disease, but also exerted a *favorable influence on the eruption*, many of the vesicles aborting, or stopping short of the suppurative stage.

But I must refrain from further comment at present, however tempting it be, which, together with the probable effect of these articles, I reserve for consideration at some future time.

ARTICLE XVI.

REVIEW OF DR. McELROY'S HYPOTHESIS OF THE PATHOLOGY OF TYPHOID FEVER.

By J. E. HENDRICKS, M.D., Des Moines, Iowa.

After describing the characteristic symptoms of typhoid fever, the writer says: "Now what is the meaning of this series of phenomena? * * * Manifestly, the soft tissues of the body are burning up. And why? Because the fever poison has rendered more or less of them unsuitable for further use of the body."

This assertion that the fever poison has rendered more or less of the soft tissues unsuitable for the use of the body, is, I think, an *entirely gratuitous assertion*, not supported by a single fact of observation or analogy. The hypothesis is not only not supported by observed facts or analogy, but it is directly opposed to *known* facts. As I take no exceptions to the treatment advocated, it being, in the main, the *expectant*, which I believe most experienced physicians adopt, I will confine these remarks to the above hypothesis.

Without expressing any opinion as to the nature of the *vital force*, or, as it is more properly called, the "*directing energy*," I may safely say that physiologists now agree that all the forces manifested by the animal system are ultimately derived from without, and are introduced as food. This food consists of molecules of matter in a state of unstable equilibrium, and force is only manifested when these molecules descend to a state of more stable equilibrium; and when the molecules thus descend to a more stable state, force, in some form, is *always* produced.

All the tissues, therefore, that are susceptible of oxidation are, until chemically decomposed, in a state of *potential* force, and cannot (unless cut off from a supply of oxygen) become "effete" or prejudicial to the system. That the soft tissues are not cut off from a supply of oxygen during fever, is manifest from the fact that they are being "burned up," producing, instead of muscular power, its equivalent, in the form of local *heat*, thereby clearly indicating that the tissue before its oxidation was *not* "effete," but in its normal state of *potential* force. In view of these facts (which are not mere hypotheses, but rest upon the firm basis of the conservation of forces), what is "effete tissue," which needs to be burned up that it may be eliminated? Manifestly, an *imaginary* source of disturbance, the existence of which is incompatible with the known facts.

But, it may be asked, if I deny that "effete" tissue is the proximate cause of fever, what *is* the cause?

As it is admitted that all the forces manifested by the system are ultimately derived from without, we may, for the sake of illustration, compare the system to a very complicated machine, the steam engine for instance. In the absence of any positive knowledge of the cause of fever, I will assume, as is generally believed, that the fever poison is some foreign body that is introduced and interferes with the harmonious action of the system; as if, instead of lubricating some of the moving parts of a steam engine with oil, some rough, adhesive substance should be applied; obviously, a portion of the working force of the engine would be diverted from its ordinary application, to overcome this adhesion or the friction resulting therefrom, and would manifest itself in the form of *heat*. So in the case of the fever patient; a poison has been introduced which interferes with the harmonious action of the different parts of the system; the assimilation of food is arrested; the force resulting from the oxidation of the tissues is directed from its usual manifestation as muscular power, and appears merely as an equivalent in the form of *heat*. This condition continues until the system eliminates the poison or becomes able to perform its wonted functions, notwithstanding its presence. There is,

therefore, no necessity for assuming the presence of "effete" tissue, even if its existence were possible.

It may not be improper to add to the foregoing remarks, the following quotation from Dr. Carpenter:

"To sum up: The life of man or of any of the higher animals, essentially consists in the manifestation of forces of various kinds, of which the organism is the instrument; and these forces are developed by the retrograde metamorphosis of the organic compounds generated by the instrumentality of the plant, whereby they ultimately return to the simple binary forms (water, carbonic acid, and ammonia), which serve as the essential food of vegetables. Of these organic compounds, one portion (*a*) is converted into the substance of the living body by a constructive force which (in so far as it is not supplied by the direct agency of external heat) is developed by the retrograde metamorphosis of another portion (*b*) of the food. And whilst the ultimate descent of the first-named portion (*a*) to the simple condition from which it was originally drawn becomes one source of the peculiarly animal powers—the *psychical* and *motor*—exerted by the organism, another source of these may be found in a like metamorphosis of a further portion (*c*) of the food which has never been converted into living tissue."

ARTICLE XVII.

CASE OF BILIARY CALCULI.

By R. DUNLAP, M.D., Waukesha, Wis.

Was called, on Saturday, March 14, to see Mr. John H. Foster, in consultation with Dr. Steele. Found he had been taken sick on Wednesday, the 11th, with bilious colic; had been in great pain through the bowels, attended with vomiting large quantities of bile for three days, without any passage from the bowels. The pain had left, but there was vomiting of a dark brown color every time any fluid was taken, but in

small quantities and without any great effort. There had not been any cramping or straining. Pulse 97, and no fever or inflammation; tongue of a thin brown color; skin cool and a little moist; some soreness and tenderness over the region of the stomach.

Dr. Steele first gave an emetic, followed by submur. hyd. and opii in small doses, to the amount of about 20 grs., and applied counter-irritants to the abdomen; had used injections freely, with operations from the bowels but twice. The first injection came away as it was given, and in about an hour he had a large passage (on Wednesday) of dark, hard fæces, looking like small worms. The other injection came away as given. I recommended to follow up the submur. hyd., in about 20 gr. doses every 4 hours, and applied croton oil to the stomach.

Sunday, added large doses of opium to the submur. hyd. Monday, Dr. Garner, of Milwaukee, was called, and advised submur. hyd. 20 grs., strychnine $\frac{1}{16}$ gr., prussic acid, and cyanide of potassa. Tuesday, used a warm bath about the middle of the day, and immediately after gave 25 grs. submur. hyd. and 2 drops croton oil. About 7 o'clock he had a passage from the bowels, which continued moderately during the night and fore part of the next day, accompanied with some bile. Vomiting had continued the greater part of the time, but not so severe, in smaller quantities, and not so frequently. I forgot to say that on Saturday, the first day I was called, I advised small pieces of ice to be held in the mouth, which was continued the whole time, with a very pleasant feeling, if not with any success. The pulse had remained, all the time, from 80 to 90.

Wednesday, he felt exceedingly well; but very little vomiting; skin natural; pulse 110 and soft. About 7 o'clock in the evening, a sudden change took place. He began to sink; a cold, clammy sweat came on; his pulse was almost imperceptible; great distress for breath; and restlessness. Brandy was freely given, but did no good. Thursday morning, I was sent for. Finding him in the above state, I gave brandy and quinine, which was used all day, accompanied with rubbing with stimulating washes and using all the external applications we

could think of, but all to no effect. He breathed his last at 9½ o'clock, as if he was going asleep.

Post Mortem.—Found the bowels empty, excepting a little fluid; saw where the stricture had been; some little mortification; the liver somewhat enlarged; and in the gall-bladder were 142 stones, from the size of a hickory nut to that of a small pea, all weighing one ounce.

Mr. Foster came to see me last winter, concerning his back, complaining of a fluttering just above the small of the back. He had no pain, but that disagreeable fluttering. He had a rupture for many years, but it had healed up, and he had not worn a truss for three years. This fluttering troubled him during his sickness.

Foreign Correspondence.

PARIS, *March 3d, 1868.*

DEAR DOCTOR:—Since my last visit to this great medical centre, the old masters have mostly disappeared. In surgery, Malgaigne, Velpeau, Civiale, and Jobert (de Lamballe) are dead; Nélaton, full of honors and riches, has retired from the hospitals and the school, and men comparatively new are occupying their places. In medicine, Trousseau, justly regarded as the first among his equals in France and, perhaps, in the world, at the end of a long and useful life, the practical results of which are given to the profession in his last and best work, the *Clinique Medicale*, also sleeps the sleep that knows no waking. Death has also taken away many others of lesser note, so that at the Academy of Medicine, the Society of Surgery, and in the hospitals, the changes are very apparent.

In the Academy, the subject of tuberculosis which has, during the last year, occupied so much of its time, was brought up again last week by the presentation of a letter from Professor Lebert (of Breslau).

It is very generally admitted, I believe, that inoculation with

tuberculous matter is followed by the development of morbid elements having a strong resemblance to, if not identical with, those of tubercle; but there is quite a difference in the views entertained by pathologists as to the *modus operandi* of the inoculated matter. Villemin and others who have experimented upon animals, think that the disease is a specific one, as much so as small-pox or syphilis, and that the introduction into the system of a portion of tuberculous matter, however small, by a process of incubation, results in the development of tubercular masses. On the other side, the specific nature of the disease is denied, and the mode of production of the morbid matter questioned.

Prof. Chauffard, at previous meetings of the Academy, had attempted to show that the same results follow from inoculation with any morbid non-specific matter, and that, consequently, there is no incubation, no such relation between the ultimate disease and the inoculated matter as exists, for instance, between the syphilitic disease and the syphilitic virus. The discussion has raised the old question, which was supposed to be settled, as to the inflammatory nature of tuberculosis, and the question is asked whether this introduction of morbid matter into the blood does not set up a kind of inflammatory action, resulting in an unhealthy exudation. Such seems to be the opinion of Lebert.

In connection with this question, the histology of tubercle has again become the subject of discussion. The question as to what constitutes tubercle, whether it is simply granular matter or whether it is more or less cellular, whether there is any definiteness of size and form or whether these qualities are incidental, determined by location and clinical history; whether there are two varieties, or whether the so-called crude yellow tubercle is only the product of a chronic pneumonia; these are so many questions that seem to be, in the minds of many of the best thinkers, yet unsolved. So far as the treatment of tuberculosis is concerned, there seems to be but little, even in the way of suggestion, that is new.

M. Moutard Martin presented to the Academy of Medicine

a memoir upon the value of arsenic in the treatment of *phthisis pulmonalis*. The conclusions of the memoir are as follows:

1st. The arsenical medication has a very positive effect upon the tubercular disease.

2d. Its action is more efficacious in those cases where the progress is slow, with but little constitutional disturbance.

3d. Acute phthisis is in no respect modified by the arsenical treatment.

4th. In a large number of cases, even in advanced stages with hectic fever, the general condition of the patients is, for a time at least, favorably affected by the treatment.

5th. The change in the local lesions is accomplished slowly.

6th. A certain number of cures ought to be attributed to the arsenical medication, the success would be more certain if the patients did not too soon consider themselves out of danger..

7th. To be efficacious, the treatment must be continued a long time.

8th. The drug should be administered in doses extremely minute.

9th. The doses should not be more than $\frac{1}{8}$ of a grain daily.

10th. Contrary to the opinion of some authorities, arsenic is better tolerated in the early than in the advanced stage of the disease.

11th. When not more than $\frac{1}{4}$ to $\frac{1}{8}$ of a grain is given daily, the tolerance is indefinite.

12th. The most evident action of arsenic is manifested in the reëstablishment of the general strength, the improvement in the local pulmonary lesion being secondary. Nevertheless, certain facts go to show that arsenic produces a direct effect upon the function of respiration, and suggests that it may act directly upon the pulmonary tissue and upon the tubercular deposits.

I had the pleasure of again seeing Fauvel, who devotes himself entirely to the diseases of the throat and nares. I saw him operate in several cases of laryngeal polypus. He has a good deal of dexterity, and is thoroughly enthusiastic in his specialty. He is about publishing a work on the diseases of

the throat and larynx, illustrated with drawings of cases occurring in his practice. Many of these drawings I had the pleasure of seeing. Moura Bourouillou, Mandl, and Fournié are also engaged in the treatment of affections of this portion of the respiratory apparatus.

Prof. Tourdes, of Strasbourg, and Hepp, *pharmacien en chef* of the civil hospitals of Strasbourg, have been conducting a series of experiments with a new anæsthetic, the bichloride of methyline. The conclusions to which they arrive are, that its action is very much like that of chloroform, probably in no respect better or safer.

So far as I can learn, the sanitary condition of Europe is good. I hear of no epidemics and no tendencies to any. The hospitals of Paris remain as they have been. The demolitions for the new *Hotel Dieu* are going on, but it must be a long time before the structure will be completed. Three years ago, the Emperor expressed the hope that this work of mercy would be achieved before the completion of the great temple of pleasure on the Boulevard, but the Grand Opera House is nearly ready and will soon be filled with music and beauty, while years must elapse before this structure, so appropriately named, will be ready to open its doors to the suffering poor who so much need the shelter and aid it is destined to furnish. H. A. J.

LONDON, *Feb. 28, 1868.*

To the student of orthopædic surgery, London offers a large field for observation. The number of cases of deformity existing, and constantly occurring in a city of its size, has stimulated the surgeon to more thoroughly investigate the means of preventing and correcting them. The result is, that London now has three hospitals devoted to this specialty which are open for clinical instruction three days in the week. The material thus collected for study has greatly advanced the pathology and, consequently, the rational and successful treatment of joint diseases and all deformities. The control of skilful work-

men, willing to construct whatever the surgeon desires, renders the mechanical treatment a much easier task than is experienced in Chicago or our eastern cities.

"The Royal Orthopædic Hospital" contains the largest number of cases of talipes and spinal curvatures. Its statistics report the treatment of over two thousand cases of deformities of the feet. The division of tendons is not as frequently resorted to as formerly, although by no means abandoned. Myotomy is frequently performed when the location will permit; as muscles make better union and regain their function more perfectly than tendons. The foot is seldom retained in the shoe by means of bandages, but, enclosed in an elastic stocking, it is secured by means of bands passing over the points where pressure acts to the greatest mechanical advantage. The elastic stocking prevents swelling, which would occur were the bands alone used. By this mode, the force is more localized and not diffused over the foot, as is the case when the bandage is used. In the first part of the process, but little tension is made, allowing union to begin in the divided tendons or muscles; in the latter, all the force that the patient can tolerate without producing pain.

The compound forms of talipes are treated by removing one element of the deformity at a time. For instance, (in talipes) equion-varus, the varus is first corrected and the case reduced to a simple talipes-equinus, which is overcome by subsequent treatment. The cure is more rapid and more perfect when this course is pursued, than when the old method is followed. The tendency to *toe in*, so frequently met with after the plantar surface is restored, is also entirely obviated.

In Potts' disease, or the backward curvature of the spine, the relief of the inflamed vertebræ from pressure and general tonic treatment, is the course pursued.

Recent cases of lateral curvature are corrected without great difficulty; but those of long standing, especially when accompanied with rotation of the vertebræ, are among the most difficult deformities to remove. Exercise of special spinal muscles, accompanied with moderate lateral pressure, together with such

constitutional treatment as each particular case may require, are the means resorted to.

The surgery of deformities is, in London, receiving the attention which it merits, and those cases which a few years ago fell into the hands of "*quacks*" and "*wonderful liniment men*," are now receiving skilful and efficient treatment.

J. S. SHERMAN.

PARIS, *March 22d, 1868.*

The medical and surgical departments of Paris have, within a few years, undergone great changes. Within the last four years many of the most prominent men of the medical schools have died. The death of such as Velpeau, Trousseau, and Malgaigne is not yet forgotten in our own country, much less in Paris. Ricord and Nélaton have both passed the age of hospital service, and no longer appear at the clinic.

The bad ventilation of the hospitals and the consequent diseases produced by the impure air, are the most objectionable features in Paris. These buildings were erected years ago, when the importance of ventilation was not known. The government has refused to build sufficient new ones, and this necessitates the use of the old ones. Some improvements are, however, being made. The "Hotel Dieu" is being rebuilt with all the modern improvements in ventilation, and it is the hope of the medical faculty that a similar course will be taken with the remainder. The large number of patients brought to the hospitals exceeds their accommodations, and leads to disastrous overcrowding in their wards.

The use of sutures after amputations is almost abandoned, the cut surfaces being held in apposition by a simple compress. When the circular operation is performed, the compress is omitted, the limb being placed in a position to favor drainage, without any dressing whatever. The irritation of stitches is thus prevented, and better results claimed than by the ordinary method. Prof. Syme, of Edinburgh, frequently omits the ligation of arteries, hemorrhage being controlled by torsion, in vessels both large and small.

There is no more interesting clinic here than that of M. Mallez, who gives his attention specially to diseases of the genito-urinary organs. Gonorrhœa and gleet, the latter of which is here known as "*la goutte militaire*," or "military drop," on account of its frequent occurrence in the army, is treated by insufflations of various remedies. The remedies are thus carried directly to the diseased part. It is painless in its application, and can be applied to portions of the urethra which cannot be reached by injections. For the purpose of making these insufflations, he has an instrument consisting of a small flexible tube, one end of which terminates in a hollow rubber ball. This tube, near its attachment, has a small hopper connecting with its interior, into which the powder to be blown into the urethra is placed. In using it, a silver tube is first introduced into the urethra, large enough to easily admit the elastic one; the space between them furnishes a return for air. By compressing the rubber ball, the powder is carried directly to the membrane, and by gradually withdrawing the tube, the whole surface of the urethra may be covered with the remedy. All substances thus used should be finely powdered. Those most in use are bismuth subnit., acid tannic, alum, potas. permanganate, any others may, however, be used, according to the indications in the case. The usual duration of treatment is from eight to twelve days; many cases yield in less time; old and obstinate cases of chronic urethritis, which have lasted for years, have been cured by this mode of treatment when all others have failed. Applications to the bladder may be made by means of the same instrument.

M. Mallez treats paralysis of the bladder by exercise of its muscular coat. To accomplish this, he first injects it with warm water, sufficient to well distend it. This produces a slight contraction, and expulsion of the fluid. Water of a lower temperature is then injected, which causes a still greater contraction. This is repeated several times, the temperature being lowered in each injection, until the limit of contraction is reached. The excitor of muscular action being cold and the principle the same that we apply in paralysis of other parts of the body.

Strictures of the urethra he divides by means of the galvanic cautery, and claims that wounds when produced by this agent do not contract when healing; hence, there is less liability to a return of the stricture than when the knife is used. Sufficient time has not elapsed to absolutely determine the truth of this theory, yet the numerous cases operated upon have progressed most favorably. Many of the most obstinate cases are found in his specialty, and he has certainly developed much in their pathology and successful treatment.

J. S. SHERMAN.

Proceedings of Societies.

ANNUAL MEETING OF THE CHICAGO MEDICAL SOCIETY, APRIL 3D, 1868.

Regular Annual Meeting of the Chicago Medical Society, Vice-President Dr. Reed in the chair. Dr. Loverin was chosen Secretary, *pro tem.*

Dr. Norman Bridge was proposed for membership. Referred to the Board of Censors.

On motion, the Society proceeded to the election of officers for the ensuing year. The Chair appointed as tellers, Drs. Ray and Macdonald.

On motion of Dr. Paoli, an informal ballot was taken for President, resulting as follows, *viz.:* whole number of votes cast 20, of which Dr. Marguerat received 9, Dr. Hatch 6, scattering 5. The regular vote was then taken, and Dr. Marguerat receiving a majority, was, on motion, declared unanimously elected President for the coming year.

The Society then proceeded to the election of Vice-President, resulting as follows: whole number of votes cast 21, of which Dr. Bogue received 16, scattering 5. On motion, Dr. Bogue was declared unanimously elected.

For Secretary and Treasurer, the number of votes cast was

21, of which Dr. Hutchinson received 9, Dr. Macdonald 12. On motion of Dr. Wickersham, Dr. Macdonald was declared unanimously elected.

The Chair appointed Drs. Davis and Wickersham to conduct the President and Vice-President to their chairs.

Dr. Marguerat thanked the Society for the honor conferred upon him, by electing him President, and would endeavor to discharge his duties to the best of his ability. Remarks were also made by Dr. Bogue to the same effect.

The newly elected President said he desired one week's consideration before naming the standing committees.

On motion of Dr. Wickersham, a vote of thanks was tendered to the retiring officers, for the very able manner in which they had discharged their duties.

On motion of Dr. Davis, the Society proceeded to the election of delegates to the American Medical Association, to be held in Washington, D.C., on the first Tuesday in May. The following named gentlemen were duly elected: Drs. Reed, Hamill, Fisher, Ross, Paoli, Holmes, and Rush.

On motion, the Society proceeded to elect delegates to the Illinois State Medical Society, to be held in Quincy, on the third Tuesday in May. The following named gentlemen were duly elected: Drs. Hildreth, Holmes, Hatch, Fitch, Bevan, Bogue, Paoli, Quales, Guerin, Hutchinson, Reed, Miller, Marguerat, and Earle.

Dr. Lyman, the retiring Secretary, presented a report, showing the expenditures for the past year ($59.46), and the amount of cash on hand ($8.93). On motion of Dr. Davis, the report was accepted and ordered to be placed on file.

On motion of Dr. Davis, the delegates to the Illinois State Medical Society were requested to invite the said Society to hold its annual meeting for 1869 in Chicago.

A motion was made and carried, that the Society postpone the discussion on diphtheria until the next meeting.

Dr. Wanzer exhibited a pathological specimen, stated by him to be an "exudation of the bowels in the form of shreds." He remarked that the patient had suffered for some years with

syphilitic contamination, inclined to constipation, her bowels being neither tympanitic nor tender. Treated the patient for secondary syphilis, administering proto-iodide of mercury and iodide of potassium in proper doses. Dr. W. desired the opinion of the Society as to the character of the specimen presented.

Dr. Davis said that he was not prepared to give his opinion until the specimen had undergone a microscopic examination.

Dr. Paoli suggested that, probably, Dr. Lyman would favor the Society by a microscopic examination and report on the case at the next meeting.

Dr. Wickersham moved the following resolution, which was carried:

Resolved, That the delegates from this Society to the American Medical Association and to the Illinois State Medical Society be instructed to vote for no one for office at the gift of said Societies, unless the candidate is a member of a local medical society, providing there is such an organization in the county where the candidate resides.

On motion, the Society adjourned.

CHICAGO, *April 10, 1868.*

The Regular Meeting of the Chicago Medical Society was called to order by the President, Dr. Marguerat.

The Secretary read the proceedings of the Annual Meeting of the Society, held on the 3d inst., which proceedings were duly approved.

Dr. Davis then recommended that the Society proceed to ballot for the election of Dr. Norman Bridge as a member of the Society, which was duly carried. Number of votes cast, 8, all being for the admission of Dr. Bridge.

The President then appointed the following standing committees:

On Ethics—Drs. Davis, Paoli, and Ross.

Censors—Drs. Wickersham, Reid, and Loverin.

Sanitary Committee—Drs. Hatch, Trimble, and Seeley.

Under the call for pathological specimens, Dr. Bogue presented a nasal polypus, extracted from the nose of a child. Its

attachment was near the posterior opening of the nostril, and had become so pendulous as to touch the tongue and somewhat obstruct the breathing. It was more firm than the ordinary soft nasal polypi.

Dr. Davis stated that he extracted a very similar polypus from a boy of 10 years, some days since, although not quite so pendulous in form as the specimen presented. This polypus being also extracted through the posterior nares.

Dr. Loverin remarked, that it had been recommended that a small portion of the inferior turbinated bone be removed along with the polypi, as it prevented their return.

Dr. Davis spoke of removing a nasal polypus from the anterior portion of the inferior turbinated bones, and of its cure by using a solution of liq. zinci chloridi gtt. iv, aqua ℥j, either injected or well snuffed up the nose. He also recommended a snuff consisting of:

℞. Pulv. Bloodroot,----------
" Opii,----------āā gr. xx
Acidi Tannici, ---------- ℥j.
M.

The subject for discussion, *viz.*, Diphtheria, was then taken up for consideration. The discussion was commenced by a written communication from Prof. DeLaskie Miller, read by the Secretary. The discussion that followed was participated in by Drs. Bogue, Davis, Paoli, Loverin, Hutchinson, and Marguerat; and though interesting and profitable, as a free interchange of views, it elicited no facts of importance not already before the profession.

MILITARY TRACT MEDICAL ASSOCIATION.

The Semi-Annual Meeting of the Military Tract Medical Association was held in Princeton, on Tuesday, Dec. 10, 1867, Dr. Hiram Nance, of Kewanee, in the chair.

The following new members were elected, on report of the Board of Censors: Drs. Kaull, E. Chamberlain, and Dunn, of Bureau Co.; and Prof. Hull, of Iowa Medical College. Dr.

Wm. O. Chamberlin, of Bureau Co., was elected an honorary member.

Dr. S. P. Breed, of Bureau Co., Chairman of Committee on Practical Medicine, read a very interesting report, which, by a vote of the Association, was requested for publication in the CHICAGO MEDICAL EXAMINER.

Dr. Holton, of Bureau Co., presented an interesting report on Materia Medica and Therapeutics, which, on motion, was received.

Dr. Holton offered the following resolution:

Resolved, That we, as members of the medical profession, refuse to consult with any physician who as a rule charges but one-half or two-thirds the regular fee, as agreed upon in our fee-bill

After discussion, it was laid upon the table by the casting vote of the President.

Dr. Reece, of Knox Co., presented a very interesting specimen of intestinal concretion, about three inches in length and one and one-third inches in diameter, and supposed to be cholesterine. Dr. R. was appointed a special committee of one, to report fully upon the subject at the next meeting of the Association.

Dr. Reece read an interesting paper on the treatment of fracture of the femur, both simple and compound, without the use of splints, depending upon the use of weights for both extension and counter-extension; also, on the importance and advantages of the silver suture in surgery.

The following Committees were then appointed:

Surgery—Drs. A. H. Thompson, Bureau Co.; Madison Reece, Knox Co.; Webster, Warren Co.

Practical Medicine—Drs. Holton, Bureau Co.; Boardman, Stark Co.; Breed, Bureau Co.; Brown, Henry Co.

Materia Medica and Therapeutics—Drs. Smiley, Henry Co.; Latimer, Bureau Co.; Woodward, Knox Co.

Obstetrics and Diseases of Women—Drs. McDill, of Henderson Co.; Phillips, of Knox Co.; Kaull and Crossley, of Bureau Co.

Drs. H. S. Hurd, of Knox Co., and S. P. Breed, of Bureau Co., were appointed special essayists for the next meeting of the Association.

Dr. A. H. Thompson, of Bureau Co., read a paper on organic and functional disease, taking the ground that there could be no functional disease in the strict sense of the term, as all derangements of function must depend on a corresponding derangement of the organism upon which the function depends. On motion, the paper was ordered published.

The Association then adjourned, to meet at Kewanee on the second Tuesday in May next.

A. H. THOMPSON, *Sec'y, pro tem.* HIRAM NANCE, *President.*

CHAMPAIGN COUNTY MEDICAL SOCIETY.

The Fourth Regular Session of the Association was held at the office of Dr. C. H. Mills, in Champaign City, on Wednesday, April 1st, 1868, and was called to order by the President.

The minutes of the last meeting were read and approved.

A very interesting paper was read, on the use of the speculum in the treatment of uterine diseases, which was discussed with spirit and profit.

The following officers have been elected for the ensuing year:

President—Dr. C. H. MILLS.
Senior Vice-President—H. SOMERS.
Junior " " W. R. EARHART.
Treasurer—I. T. PEARMAN.
Secretary—S. H. BIRNEY.
Censors—H. C. HOWARD, I. MCHUGH, M. S. BROWN.
Delegates to Illinois State Medical Association—Drs. W. EARHART and S. H. BIRNEY.

On motion, the Secretary was directed to prepare an account of the proceedings of the Association for publication, and send copies to the Chicago *Medical Journal* and EXAMINER.

On motion, the Society adjourned, to meet in Urbana the first Wednesday in June.

I am happy to state that the Society is in a very flourishing condition.

SAM'L H. BIRNEY, *Secretary.*

Selections.

ON THE CONVEYANCE OF ASIATIC CHOLERA FROM HINDOOSTAN, THROUGH CENTRAL ASIA AND PERSIA, TO RUSSIA AND ENGLAND, FROM 1817 TO 1831.

By JOHN C. PETERS, M. D., of New York.

Asiatic, or Hindoostanee cholera, has always originated in India or Hindoostan, and has been conveyed from thence repeatedly to almost all parts of the world. The cholera of 1817 originated at or near the mouth of the Ganges, followed up the course of that river to the northwest, towards its source in the Himalaya Mountains, then pursued the great trunk road of trade and traveled through the cities of Delhi and Lahore, to the Punjaub, or extreme northwestern province of Hindoostan; passed through the Himalaya Mountains along the line of the Cabul river to the city of Cabul; thence followed the course of the caravan trade between Russia and Asia, through the great cities of Central Asia and Independent Tartary, viz.: Balk, Bokhara, and Khiva, to the towns of Astrakhan and Orenburg, in European Russia.

Another great route of cholera was from Bombay, in 1821, to Muscat, at the foot of the Persian Gulf; thence up the Gulf to Bushire; from there through Central Persia to Ispahan and Teheran, and up the Caspian Sea till it reached Astrakhan, in Russia, near the mouth of the Volga, in 1823, when 216 cases, and 144 deaths occurred. The Russian Government established a most rigid quarantine against Astrakhan, and saved the rest of Europe. From Teheran, to Persia, near the foot of the Caspian Sea, it also followed the line of travel up between the Black and Caspian Seas, to Tabrez and Tiflis, in the Caucasus, and reached Astrakhan from this (third) direction. But the precautions of the Russian authorities again prevented this, and from 1823 to 1829, we find European medical writers speaking of cholera as an epidemic which had passed away, and expressing the hope that it would never return.

But in 1827, cholera received a fresh impulse in North-western Hindoostan, and was again carried by caravans from Lahore, in the Punjaub, through the Himalaya Mountains, by way of Attock and Peshawar, to Cabul, Balk, Bokhara, and Khiva, and reached Orenburg, in Russia, on the 29th of August, 1829.

About the same time, it was again carried from Bombay up the Persian Gulf, and again arrived at Teheran, in the northernmost part of Persia, in 1829, whence it was forwarded up the Caspian Sea to Astrakhan, by the 19th of July 1830.

Thus Astrakhan and Orenburg, in Russia, were the first towns in Europe ever attacked by cholera, and if it is asked why this should be, the answer is very easy.

Orenburg is situated on the Ural river, some distance above its mouth, by which it empties into the northern end of the Caspian Sea. The Ural river forms part of the boundary line between Russia and Asia, and Orenburg is built on both sides of this stream, with two separate bazaars—one European, the other Asiatic—each located on the side of the river belonging to their respective countries. The European bazaar has 180 shops; the Asiatic 492. In fact, Orenburg is the chief emporium of the Russian trade with Central Asia, large caravans arriving yearly from Bokhara and Khiva, with jewels, gold, silk, cotton, cashmere shawls, indigo, tea, and other goods, to the value of over £1,500,000. Russia sends back the same amount of iron, cutlery, and other manufactures. More than 3,000 camels are employed in the transport of cast iron articles alone, consisting mainly of pots, kettles, and water cans. Indeed, there is no house, and even no tent, in all Central Asia, where there is not some article of Russian manufacture. The most active trade and correspondence is also kept up between the two countries, for many wealthy Asiatic merchants make constant trips to the Russian Fair of Nishni Novgorod, and frequently travel on to Moscow and St. Petersburg. Orenburg is also the principal Russian military station for operations against Central Asia, for in 1829, the town had only 11,000 inhabitants, of which number 6,000 were soldiers, and in 1839, no less than 20,000 men and 10,000 camels, set out from this city on a campaign against Khiva. Hence we are not surprised to find that cholera first declared itself in the Russian garrison at Orenburg. It prevailed from the 26th of August, 1829, to the 20th of November, and about 1,000 persons had the disease, out of a population of 11,000, but several hundreds only succumbed. It was checked by the cold

weather, and by the middle of February, Russia was free of the disease.

Astrakhan is the great rival of Orenburg for the Asiatic trade. Its population is composed of Russians, Armenians, Cossacks, Tartars, Calmucks, Hindoos, and the Asiatic tribes. In fact, it consists of almost all nations of Europe, Asia, and of all creeds. It has mosques for the Mahommedans, temples for the Hindoos, as well as churches for the Christians. It has over 100 large manufacturing establishments, extensive salt works, and flourishing fisheries on the Volga and Caspian Sea. It is likewise one of the principal naval depots, not only for the Caspian and Aral Seas, but also for many lakes and rivers of Central Asia. Numerous sailing vessels and steamers are constructed and armed at Astrakhan for the lakes and rivers of Central Asia.

Cholera was introduced into Orenburg by merchants, travelers, caravans and soldiers, but it came to Astrakhan by sailing vessels, especially from the port of Bakon, on the southwest side of the Caspian Sea. In ten days, 1,290 persons were seized with cholera in Astrakhan, of whom 430 died.

From Astrakhan it extended up the river Volga the distance of 420 miles, in less than a month, and is supposed to have traveled nearly 1,500 miles from Persia, in three and a-half months, in order to reach Nishni Novgorod and Moscow.

It is said that many persons fled from Astrakhan, along the course of the Volga, and carried the disease with them; for in ten different towns along this stream, the first victims were navigators of the Volga, or others arriving from places where the disease already raged. Some distance above its mouth the Volga bends abruptly to the West, and approaches the river Don, which makes an equally marked elbow towards the East, and affords a facile and favorite place of trade for the inhabitants on the two rivers. Don Cossacks visited the Volga for the purpose of trade, contracted the disease, returned to the Don, where some of them died in September, and the cholera commenced to travel down the river Don towards its mouth in the Sea of Azof, and thus spread to the Black Sea, at the same time that it was ascending the Volga to Nishni Novgorod and Moscow. No less than 54,000 Don Cossacks contracted the disease in 1830, and 31,000 of them died. Other Cossacks were drafted in the Russian army, which was going to the Polish war, and with this army, cholera entered the southeast corner of Poland, and was carried northwest to Warsaw, from thence into Prussia. It is very significant that the little Mora-

vian town of Sarepta is situated on the great elbow of the Volga, in the very midst of the Don Cossack district, and has never contracted the cholera. The inhabitants are always very cleanly, and always institute a most rigid quarantine against cholera.

By the 27th of August, the pestilence reached Nishni Novgorod, high up on the Volga. Some say it came from Orenburg, in the East; others from Astrakhan, in the South. It probably arrived almost simultaneously from both places. The chief importance of Nishni Novgorod, is derived from the world-famed fair which is held there annually, and continues during the whole of July and August. It is visited by from 300,000 to 400,000 traders, and the value of the goods exhibited averages $50,000,000, of which more than one-tenth part comes from China, Persia, Central Asia, and India. In fact, Indian, Persian, and Chinese silks, teas, and furs, form some of the principal articles of Russian foreign trade, most of which reach it from Orenburg and Astrakhan. The vessels engaged in taking cargoes in and out are so numerous that the waters of the Oka and Volga rivers, at the confluence of which Nishni Novgorod is situated, are literally crowded and choked with the mass of shipping. The number of Asiatic visitors is also so great that Mahommedan mosques and Hindoo temples are placed in company with the Russian churches within the precincts of the fair.

By the 15th of September, 1830, the cholera reached Moscow, due west of Nishni Novgorod and Orenburg, 50,000 persons fled the city. But up to January, 1831, 9,000 of those who were left were attacked, and more than one-half of them died. Moscow is the seat of the principal Russian manufactories, of which not less than 484 are in active operation. It is also a great centre of internal commerce with Riga, on the Baltic.

From Moscow it was conveyed, early in May, 1831, to Riga, and it is distinctly stated that it was brought to the headwaters of the river Duna, at the mouth of which Riga is situated, and was carried up the stream to that city. Immense alarm arose, and on June 3d, no less than 60 vessels fled in haste from Riga, four of which were destined for England, especially for Sunderland, on the east coast. By October 26th, 1831, an official English report declared that 306 cases and 94 deaths had already occurred in Sunderland, and the first case of cholera in London occurred in the person of a man from Sunderland. From London it was carried to Dover, and over

to Calais and Paris, in France. From England it was carried to Ireland, and in the spring of 1832, vessels from Dublin and Cork, conveyed the disease over the Atlantic to Quebec, in the manner stated in the October number of your journal.

From Moscow it was also carried to St. Petersburg, on the 26th of June, 1831, and Drs. Russell and Barry, of the Indian service, who had been familiar with cholera in Hindoostan, were sent by the English Government to observe the disease. A triple cordon of troops were placed around St. Petersburg to keep out the cholera; but Drs. Russell and Barry stated that the first case occurred in a person who came down the river Neva, in a bark with goods from Moscow; the second in an individual who had been on board the bark upon its arrival; and the third in a soldier who had mounted guard on the boat to prevent any intercourse with the shore. From St. Petersburg it was carried down to Cronstadt, on the Baltic, and a new current of the disease was then let loose to visit Hamburg, Bremen, Denmark, Norway, Sweden, and England.

It is well to add that Sunderland, which is only 20 miles from Newcastle, had over 500 vessels engaged in the coal trade, with ports in the Baltic, in 1831; that Riga has the largest commerce of any other port in Russia, except St. Petersburg, and that Drs. Russell and Barry also state that the disease was propagated in St. Petersburg, immediately upon the arrival of several thousand passengers and boatmen, who had come from infected places in the interior of Russia, or had been exposed to infection on the passage on board these vessels.

ON MIXED TYPES OF FEVER; IN RELATION TO THE QUESTION OF THE IDENTITY OR NON-IDENTITY OF THE TYPHUS AND TYPHOID POISONS.

By Dr. HENRY KENNEDY, A.B., Dublin.

[The question of the identity or dissimilarity of typhus and typhoid fevers seems, in England, to be quite decided in favor of the latter. Turn to any work lately published on the subject, or to the doctrines taught at the London hospitals, as shown in the published clinical lectures, and this will forcibly appear. Dr. Kennedy, however, believes the two forms of fever to be identical, both owing their origin to the same poison. He observes that the work of Huss, on this subject, has always

been utterly ignored in this country. He saw fevers on a larger scale than any British physician.]

Surely, in such a widespread disease as fever, no one is justified in asserting that what they have seen is what must have been seen by others. We know that even in the type of fever familiar to us as typhus, very great differences exist, and may be constantly seen when the disease attacks several members of the same family. In one, the head symptoms are all in the ascendant; in a second, the chest will be the part attacked; whilst in a third, it will be the stomach, in the form known as gastric fever. Or, again, as regards the spots, the husband will present them and the wife not, or the parents will have them and the children not; or it may be the converse of this. In a family named Bright, of whom eight were in the hospital at the same time, and who were sent in by Dr. Carte, of the Royal Hospital, the children were all spotted, whilst the mother had none, though she had a very severe attack of fever. Again, in three sisters, all adults, who were recently in hospital, only one had the regular spots of the disease; in the other two anything of rash was most indistinct; one of these latter died. Further still, in the great epidemic of 1847–48, the fever was what is known, and had been described previously, as the relapsing fever; that is, it was made up of two parts. There was a sharp attack of fever running on for five or seven days; then a lull of one, two, or three days; and again an onset of fever, usually much severer than the first, and, in very many cases, attended by spots. No one, I think, could have any doubt but that it was one and the same poison that caused the two attacks; and yet, in all the recent and standard works on fever, the relapsing type is described as if it were a totally different fever from typhus, and caused by a different poison. I cannot give in may adhesion to this opinion, for I have as strong a conviction as the nature of the subject admits that the poison of typhus generates not only the type of fever known as relapsing, but other types, such as nervous, gastric, cerebral, etc., as also fever, both without and with spots, and presenting all the variety which they are capable of exhibiting; and if this view of the typhus poison be not held, insuperable difficulties, as it appears to me, must arise when we come to consider analogous diseases to fever, as, for instance, scarlatina. Here, every one must have seen the great variety—I might, also, say contrasts which this disease often presents in the same family and at the same time. Yet no one ever thought of setting down these differences to different poisons; and why it should be necessary

as regards fever it is not easy to understand. I must leave this point to others to settle.

From the tenor of these remarks, it will be understood what are the views I hold on the question more immediately under discussion. I believe that the typhus poison is capable of engendering the type of fever known as typhoid or enteric, and that this particular type must be due to some other cause, rather than a specific poison. On the other hand, I hold that the two types can, in the great majority of instances, be distinguished, the one from the other. When I brought the subject first before the Royal Medico-Chirurgical Society of London, in 1860, one of my arguments consisted in the detail of a few cases which were directly opposed to the views of the London physicians. In a later paper, published in the *Dublin Quarterly Journal*, a still larger number of cases were given, and I cannot, I believe, do better now than by giving the briefest sketch of some which have come under my notice within the last two years. But, in truth, I may say the difficulty now consists in selecting the cases, they have become so numerous. So I shall take such as bear most directly on the disputed point.

Case I. McKeown, farmer, aged 17, having a fine skin, passed through a very severe attack of enteric fever. Every symptom was present, and, during its progress, the brain was much engaged, and the tongue and lips covered with sordes. He made a good though slow recovery.

Case II. His brother, aged 12, from same room, was admitted under a severe attack of typhus. He had the well-marked and copious rash of the disease, and his face was quite characteristic. He had a sharp attack of diarrhœa, calling for special treatment. My friend Dr. Hudson, was kind enough to come and confirm my diagnosis of this case. It is but right to state that there was an interval of a week between the admission of these two brothers.

These two cases have been given as affording an example of the two types of fever, each well marked, coming from the same room. Others, I know, have met similar examples, and Dr. Croly, of Harcourt Street, has informed me of a very striking one.*

Case III. McCauley, aged 18, fine skin, was handed over to my care by my friend Dr. Moore. The patient labored under fever, and had the spots of the enteric type very well marked

* After the reading of the paper, Dr. Croly detailed three cases of fever which occurred in the one room. The first was a case of enteric fever, the second a case of typhus, whilst the third was a mixture of the two types.

on abdomen and sides of the thorax, but there was no other sign whatever of this kind of fever. His illness ran on for many days, the chest becoming engaged, and when he left the hospital there were signs about him as if phthisis might supervene.

Cases 4 and 5 were of a similar character to the one just given—that is, with fever, the spots were those of the enteric type, but no other symptom of that kind of fever. As they were published, however, in the *Lancet* for December, 1864, I shall say nothing more of them here.

Case VI. Podesta, an Italian, 14 years of age, and of a very fine skin, admitted into hospital in September, 1865. In the course of his fever he presented a very good example of the spots said to mark enteric fever. They were few in number, and appeared on the sides of the chest and abdomen. Neither in this case was there any other sign whatever of the enteric type of the disease.

Case VII. Develin, a young man of 17, admitted into hospital during the present month, April, 1866. He had fever, but not of a severe kind, marked by the usual symptoms, and the tongue red and furred. When he was now six days ill the spots of enteric fever appeared on the chest and abdomen, and in an unusually well-marked form. On the second day of their appearance this patient was seen by the Drs. Martin, from Berlin, who happened to be visiting the hospital. On the third day, however, the number of spots had greatly increased, and become more those of typhus, and, finally, the case, beginning with the spots of enteric fever, became one of irregular typhus.

Case VIII. Keegan, a man of 27, admitted March, 1865. He was laboring under a heavy spotted fever. Some of the spots were large and dark, some were unusually well defined and red, and disappeared on pressure. The case, however, was one of regular typhus, and the man made a good recovery.

Case IX. Murphy, girl of 19, whilst passing through a severe attack of fever, with typhus spots, got a very sharp attack of diarrhœa, attended by tympany, and pain on pressing the ilio-cœcal region. Nothing checked this diarrhœa till special treatment was adopted.

Case X. A dumb girl, aged 24, sent into hospital from the South Union. She had bad fever, being all covered with a copious mealy rash, whilst the tongue, face, and eyes were those which mark typhus. In the progress of the attack she has got severe diarrhœa, attended by tympany, and distinct pain when pressure was made on the ilio-cœcal region, and only

here. This complication required specific treatment, and she got steadily but slowly well.

Case XI. Dixon, a man of 25, of a very fine skin, and thin, admitted into the Cork Street Hospital, laboring under fever, and with a copious rash of typhus spots over him. His general aspect that of the same type of fever. As the disease went on he got severe diarrhœa, the discharges being a light yellow color, and attended by distinct pain in right iliac region, and tympany. This man also required specific treatment, and the attack was one of unusual severity, marked by great distress and restlessness. His recovery, too, was much prolonged by the occurrence of several abscesses.

Case XII. In February, 1866, Kelly, a man of 19, was admitted into hospital. He was evidently very ill; but the symptoms of typhus and enteric fever were so mixed up that I was quite unable to say to which type of the disease the case ought to be referred. He had a copious rash over the body, and his expression was that of a man in typhus. But he had, also, slight though marked tympany, distinct pain on pressure over the ilio-cœcal region, and a very severe diarrhœa, the discharges being of a light yellow color. He made a very slow recovery. *This man's sister was in hospital at the same time. She had typhus.*

Case XIII. Woods, a man of 20, came in with a kind of spurious fever on him. He then went out for some days, but returned in a week with every sign of enteric fever on him except the rash. He had, however, spots on him, which to my surprise turned out to be variola in the discrete form. Whilst still in bed from this, he seemed one day to grow suddenly worse, and then typhus in a very severe form declared itself. During all this time he had sharp diarrhœa, and the discharges were those which I believe to be most characteristic of enteric fever, being of a light yellow color. This patient's life was in the balance for many days, but he finally recovered.

Case XIV. Burn, a girl of 16, admitted in July, 1865. She then labored under a severe attack of typhus, being well spotted. She was so far advanced as to be sent to the Convalescent House, when she again sickened, complaining of her head, and this again followed by great raving and high fever. When now a week ill, the spots of enteric fever made their appearance. These were unusually well marked, being few in number, and confined to the sides of the chest and abdomen; but there was no other symptom whatever of enteric fever, and they were looked for, I need scarcely say, with the greatest

minuteness, nor did any such appear. At this stage of her illness, the patient was seen by Dr. Murchison, of London, who was visiting Dublin at the time, but who, I regret to say, I was not fortunate enough to meet.

Such is the series of cases which I wish to bring under the notice of the Association this evening. When added to those already given in the two former papers—and did time permit, I could have given other similar cases—they appear to me to afford the strongest proof the question is capable of eliciting, that we must consider the two types of fever known as typhus and enteric as the result of one poison. If this be not the correct view to take of the matter, I confess myself quite unable to explain the cases of the mixed types detailed this evening; for it must have been observed, as each was given, how the symptoms of each type of fever were mixed up together. As there is not time, however, to go over each symptom in detail, I shall notice but one, on which most, if not all, who hold different views from my own, seemed to have placed the greatest weight of their argument. I mean the spots said to be characteristic of enteric fever. On this point, I think I may say with certainty that these lenticular red spots, and few in number, have not the value which has been given them; for I have seen them now in many instances, and some have been given this evening where, whilst they existed, there was not another symptom of the ileum being engaged—at least I could make out no evidence of such a lesion, though looking specially for it. Here, then, were cases where the particular spots existed, but not the lesion of which they are said to be diagnostic. But, further still, I have given cases to-night where, with the enteric spots, there was also a typhus rash. As bearing on this particular point, I would just recall the case of the man Develin, where the enteric spots first appeared, then the typhus rash, and as this latter disappeared the enteric spots were again visible. If this be not a case in point, I know not what is; and I shall be glad to hear some explanation of this from any gentleman who differs from me. As regards the spots of typhus fever generally, I have got an impression that a good deal of misconception exists. I have heard some speak of the bright and the dark spots, as if there were a difference between them. On this point, I can state with certainty that it is very common to see the two on the same individual, and at the same time. This may be seen on the body itself, but it is more common to have them dark on the body and a bright red on the arms. Again, the spots of enteric fever are described as recurring again and

again, and this is quite true. But it does not seem to be so generally known that the same may be seen in typhus, for I have witnessed cases where a distinct second crop of eruption appeared; nor is the observation original, as I have read of it in one of the olden authors, though I cannot at this moment give his name. So also of the statement that petechiæ are never seen on the face. This is positively incorrect, as I have noted several cases where they were quite distinct. But these points are only mentioned here as bearing indirectly on the point under discussion. Still, I think they are enough to show that any positive statements about the rash in fever must be received with caution, as the variety is truly very great. I cannot, however, pursue the subject further here.

In the course of these observations it has been stated that the enteric type of fever must be due to a something else rather than a particular poison; and if asked what that is, I would state my impression that it only occurs in persons of a peculiar constitution, most probably closely connected, if not identical, with the strumous. This idea I have stated before; but every year is increasing my conviction on the point, and if it should turn out to be correct, I need scarcely say how important it would be. I know not whether the idea has struck any one else, but it is not stated in any one of the works on the subject that I have seen. My reasons for holding this view are the following: The enteric fever is very constantly indeed met in persons of a fine skin, and I have now seen several instances where scars, evidently strumous, existed in the neck of persons who had this type of fever. Again, it is much more common under 30 years of age—that is, when the tendency to struma is known to be strongest. I am aware that this remark may be objected to, inasmuch as every type of fever is more frequent under 30; but what I would convey is this, that whilst typhus is common after 30, 40, and 50, enteric fever is exceedingly rare. I myself have not met it in any instance above 35, though it has, I know, been seen later; but, further still, every one is aware that in the course of enteric fever the lungs are very apt to become engaged. But in place of this affection passing off with the fever, as it does in typhus, it is by no means uncommon to meet cases where signs like phthisis declare themselves. The pulse keeps up, sweating occurs, and the cough is very troublesome and hard to relieve. I have said that such is common after enteric fever, and I have been forced to send several out of hospital in this state with the hope that change of air would benefit them, and in some I know that I

heard of subsequently it had proved successful. That the idea I would put forward is not without some surer foundation than mere impression, I may cite the following instance:

Case XV. C., a girl of 16, was admitted into the Cork Street Hospital in January of the present year. She had a very fine skin, with light eyes and hair, and labored under enteric fever in a very well-marked form. The diarrhœa proved most obstinate; but as the abdominal symptoms yielded the lungs got very much engaged from general bronchitis of the minute tubes, and for more than ten days the dyspnœa was of the most urgent character, the lips being quite livid and the distress very great. Though the urgency of this state lessened, the pulse still kept up, and the patient began to have regular sweats, and, finally, I was able to observe that the upper part of the right lung was becoming solidified. Nor did the disease stop here, for in a period of about seven weeks I was able to trace weekly the process of softening going on, till at last a cavity was formed. In this state the patient left the hospital, the physical signs in the top of the lung being those of a cavity, but the rest of the lungs being apparently quite sound, and as the patient's passage had been taken for America, it is just possible the predisposition to tubercle, which seemed so strong in this girl, may be averted, and she might yet live to old age.

Lastly, on this question of the connexion, or supposed connexion, between enteric fever and the strumous diathesis, I would just advert to the great similarity which obtains between the lesion found in the fever and that which so often exists in ordinary phthisis. For my own part, I must say that I have seen many specimens where I could not distinguish them, and I shall be glad to hear any gentleman express his opinion on the point.

The general question brought before the Association this evening is not, as some think, one of mere curiosity. It is of every importance that it should be settled. The diagnosis, prognosis, and treatment of the disease all hinge upon it. For if typhus be the specific fever which some think it, it is obvious that the treatment will differ from what it would do were the enteric lesion present at the same time, and the danger of allowing such a lesion to pursue its course unchecked would indeed be very great. On the other hand, those who hold with myself that the two types of fever may arise from the one poison and coëxist, will always be on the look-out for such a complication, and will act accordingly. For myself, I believe I have often had to deal with such cases, and to alter or modify the

treatment as the case required, and that this is not a mere belief I have reserved for this part of my remarks the details of the following cases, which have, however, been on a former occasion detailed:

Case XVI. A girl 20 years of age was attacked with fever of a severe kind. Raving occurred and petechiæ very early, and these latter spread over the entire body. With these symptoms there was also severe diarrhœa and tympanitis. Matters went from bad to worse, and the patient died about the fourteenth day of the fever. On *post mortem* examination, the lower portion of the ileum was found extensively ulcerated, Peyer's patches being the parts engaged.

Case XVII. A boy of 14, who had already learned to drink, was attacked with fever. He had much stupor and moaning, both night and day, and he presented a copious petechial rash over the body. With this state he had tympany and diarrhœa, and, finally, involuntary stools and death. On examination, extensive ulceration in patches was found in the lower portion of the ileum. The brain presented the usual appearances found in cases of fever, but in a lesser degree than is common. I should say at the time this case occurred I was much surprised at the result of the *post mortem*, for I then believed the enteric lesion could not exist with regular typhus, which the boy otherwise presented.

Case XVIII. Hill, a girl of 18, fine skin, was admitted into hospital, after being nine days ill of fever, which presented all the signs of the enteric type, including the spots, which appeared the day after admission. These did not, however, go through the usual course of such spots. They gradually increased in numbers, spreading to the chest, arms, and, finally, to the face, and in this state many of them could not be distinguished from regular petechiæ, being large, dark, and ill-defined. My colleague, as he was then, Dr. Aquilla Smith, saw the patient at this period. By the fourteenth day of the fever, all the signs of enteric fever seemed to have subsided, but there was no corresponding change in the state of the patient. Her nights became restless, she shortly lay on her back, sordes formed on the nostrils, lips, and tongue, and she got great tremor of the upper extremities—in fact, she presented all the signs of well-marked typhus, and died on the twenty-first day of her illness. Except in the lower portion of the ileum, nothing abnormal was found, and here the signs of disease were slight but well marked. Peyer's patches were much plainer than natural, and this became more apparent as the valve was

approached, for here one of an inch in length and a-third in breadth was prominent and brought out in strong relief, but it had not ulcerated. The impression given by the inspection was, that irritation had recently been going on in the part but had somewhat subsided. The specimen was exhibited before the Pathological Society.

Case XIX. Bellew, a servant, aged 45, of tall stature, and thin, admitted in May, 1862, with all the signs of fever in a very severe form. He had to be supported into the hospital, and, though only one week ill, was already densely spotted; his tongue dry and brown; eyes very much injected, and expression heavy. There was also severe diarrhœa, which seemed to cease suddenly within forty-eight hours—that is, about the eighth day of the fever. From this out the attack was as genuine typhus as it is possible to describe. The spots became of the darkest, the mind very confused, with constant rambling, and passing under him. There was difficulty in putting out the tongue, and, late in the illness, hiccup. By the eighteenth day the symptoms had materially improved. The spots were gone, the tongue had expanded and was put out better, and he took support well. It was evident, however, the fever had not resolved itself. The pulse had not fallen in proportion, nor the tongue cleaned, and he still remained heavy and, at times, would ramble. In this state he went on till the twenty-fifth day, when he died. There was no effort at crisis at any time, nor any tympany. I was only able to examine the abdomen. The ileum had no ulceration in it, but it was very red in patches, and the more so the nearer we got to the cœcum. In this last organ, the chief lesion was found, for it was ulcerated in patches, one as large as a shilling. The ascending colon had a number of small and distinct ulcers in it. The glands of the mesentery were not enlarged. It is scarcely necessary to observe that Louis' observations prove that the colon is often engaged in enteric fever, similar to what has been just described.

It appears to me these cases afford as strong a proof as the nature of the subject admits, that the enteric lesion may coëxist with a petechial rash, or, in other words, with typhus fever. On my own mind there now exists not a shadow of doubt of the fact, and if this be not the proper view to take of the matter, I must ask those who differ from me to explain it otherwise. What has been advanced are facts, put what interpretation on them we may. Nor would the slightest difficulty exist in giving other cases, and some striking ones have occurred within the last month; but I prefer now to glance at what others have

seen; for if no one else had met similar cases to my own, there would indeed be strong grounds for questioning my powers of observation, and, necessarily, the correctness of what I have stated. I refer, then, my hearers to the lectures of the late Dr. Todd, in which they will find some cases exactly like those given this evening—that is, the enteric type of fever attended by a copious measly rash. Some of these, too, died, and the specific lesion of the intestine was found. Again, in Chambers' "Clinical Lectures," may be found cases of exactly the same kind, and also examples of the two types of fever coming from the same room. Here, then, are two London physicians who fully bear out what has been advanced this evening, and I quote them the more readily, as they have managed to see a class of cases which, by some strange fatality, never seem to have come under the notice of Dr. Jenner and those who agree with him; but, further, I observe that Dr. Lyons, when in the Crimea, met the two types of fever in the combined form, and states, especially in his work, that whilst the rash was genuine typhus, the lesion often found was ulceration of Peyer's patches. In a paper, too, which has just appeared, by Dr. Law, on "Fever," one of the cases given is described as a typhoid case, as I believe it was, and yet the rash was a copious measly one. Lastly, the Drs. Martin, from Berlin, whose names I have already mentioned, told me the two types of fever were commonly looked on as the same disease, and that the enteric type was there called abdominal typhus. I have not the least doubt that had more time been given I could have got further evidence in the same direction; but enough, it appears to me, has been advanced for my present purpose. I do not, for a moment, assert that the question is settled on my side; but I do maintain that enough has been stated this evening to show gentlemen who differ from me the need of a cautious reserve on this question, and in not allowing themselves to come to a decided conclusion till all the facts of the case are clearly before them.

Before concluding these remarks, I would advert for one moment to one other symptom, which some have thought was characteristic of the enteric type of fever—I mean hemorrhage, whether from the nose or the bowels. The London physicians especially, look on it in this light, but it certainly is not correct as regards Dublin. With us, typhus often exhibits epistaxis, both in its earlier and more advanced stages. In the summer it is very common, particularly when the temperature ranges high; but it is much more frequent in some years than others. And,

again, as regards bleeding from the intestines, I myself have put on record some thirty cases—most of them regular typhus—in which bleedings, more or less severe, occurred, and in some that proved fatal and were examined not a trace of ulceration was found. So that bleedings cannot in any way be considered as specially diagnostic of enteric fever, and I do believe the same may be said of any other symptom that might be chosen. I would repeat, however, that it is quite another matter distinguishing between the several types of fever. This can very usually be done, and ought, of course, always be attempted; but that the types of fever will often be found united I cannot doubt, and I think the time will come when the natural history of fevers—for this is really the question at issue—will be looked on in a very different light from what it at present is.

On the treatment of fever, I have here little to say. As a single remedy, and in the ordinary typhus, I find balm still the best. It seems to me to act as an antiseptic, and to fulfil the indications required better than any other agent with which I am acquainted. I consider, too, that, to a certain extent, it supplies the place of wine: and this is no little matter to be able to say of it. Under its use the mortality, in spotted cases, has, I believe, been reduced to the lowest on record. But having spoken of these several points on a former occasion, as likewise the dose and method of using it, and the precautions to be adopted, I shall not enter upon them further now.

Of the treatment of the enteric type of fever, I have only to repeat that, when seen early, it appears to me the most amenable of the several forms of the disease. I mention this, because elsewhere, particularly in London, it seems to be a very fatal disease. Like typhus, it appears as if it were a more severe disease there than with us in Dublin. Though not easily accounted for, this may be so. Still, my conviction is, that treatment has a more decided effect on it than any other type of fever. For myself, I use astringents, and from an early stage of the attack, and it is the dilute sulphuric acid on which I chiefly rely. This is the medicine recommended by Huss, and in the proportion of one, two, or three drachms to an eight-ounce mixture, I have found it most useful. Two or three drops of laudanum are added to each ounce of the mixture, which is repeated according to the urgency of the case. It is, however, to be observed that the diarrhœa is only to be moderated, not directly checked; and this rule is the more important the earlier the disease is seen. If the diarrhœa be stopped too soon or too suddenly, mischief elsewhere than in the intestines will

arise. It may be in the chest, or the brain may be the organ that suffers. Several such cases have come under my notice; but though some of these were severe, none proved fatal. One, however, was so remarkable that I must give it here; for the checking the diarrhœa had, or seemed to have, the effect of altering the type of fever under my very eye:

Case XX. Kelly, a man of 19, having a fine skin, was admitted into hospital, laboring under the enteric type of fever in a well-marked form. He presented the characteristic diarrhœa and also the spots, and had been nine days ill. After three doses of the acid mixture the diarrhœa suddenly ceased, and was at once succeeded by symptoms referred to the head. His eyes, which before had been quite clear, became deeply injected; he complained of headache, his face flushed, he began to rave, and in the course of two days he presented the countenance of a well-marked typhus case, his tongue and lips being then covered with sordes. In this state, and when now about twelve days ill, his nose began to bleed, and this was repeated daily three times, so that he bled in all on four occasions. The first of these the bleeding was much the most, and they were all so obviously beneficial that they were not interfered with. The patient made a good though very slow recovery. There was no recurrence of symptoms referable to the intestines. I have seen several instances like the one just given, but none so striking, and none which proved fatal. When, however, any similar instance occurs, it may be assumed that the case is quite within our control.—*Medical Press and Circular, June 20, 1866, p. 647.*

ON THE USE OF STRYCHNINE IN EPILEPSY.

By WALTER TYRRELL, Esq., Malvern.

[Mr. Tyrrell published a paper on this subject in May, 1867.]

I stated at the end of my former paper, my belief that "in strychnine we possess a drug which will always control the excitability of the medulla oblongata, and restrain the attacks of convulsion." This opinion will, I think, be found to be remarkably strengthened by a perusal of the following cases. One most important fact is to be gathered from them, *viz.*, that large doses of the drug must be given to produce the favorable results. In some of the cases the doses may appear formidable, but I feel confident that with care and watchfulness no ill ef-

fects need follow their administration to the epileptic. In such cases the system appears to lose its susceptibility; and the drug, even in large doses, produces none of the ordinary signs of disagreement. In no case have I seen it produce any mischievous excitement or irritation; and I may state that in one very severe case, still under treatment, I have carried the dose as high as one-fifth of a grain, taken twice daily, and this continued for nearly three weeks together, not only without its producing the slightest sign of irritation, but, on the contrary, the most marked diminution in the frequency and violence of the attacks. The following case, although the attacks had but recently come on, is interesting, as showing how rapidly the beneficial effect of strychnine is often gained, no attacks having supervened after two doses (each of one-twelfth of a grain) had been taken.

H. R., aged 29, has been of late years much exposed to heat in China, Singapore, and Japan; had congestion of the liver in March, 1865; was invalided home in June, 1865; since which time he has been living at home, under treatment for enlargement of the liver, using iodide of potassium and iodine ointment locally. On May 22, of this year—a very cold, snowy day—he imprudently stayed out all day fishing, and at dinner that evening was seized with a violent epileptic fit, accompanied with great convulsion; this was followed by other attacks at the following intervals: May 25, three fits, at intervals of one hour and a-half; May 30, a fit in the evening; June 1, two fits, with six hours' interval; June 2, one fit in the evening. On June 5, he arrived in Malvern, and I prescribed for him one-twelfth of a grain of strychnia twice daily, allowing him to continue his potash in rather increased quantity. On the morning of the 6th, he had three fits, during the first of which I was present; they were very convulsive, and produced an extremely prostrating effect on his mind—so much so, that even after the ordinary stupor had passed off, he was unable to answer the simplest question without consideration and great hesitation. It is needless to give a daily report of this case. I increased the dose of the strychnine to one-eighth of a grain; he had no further attacks; and his return to health, both bodily and mental, although gradual, was most perfect. He is now at the seaside, and may be considered, to all intents and purposes, convalescent. In this case, it was curious to observe how the inclination to an attack (which occurred several times during the early treatment of the case) yielded at once to a slight increase in the strength of the dose. I may say that in

this case I found the use of ice to the nape very useful, insuring quiet sleep, and also allaying a frequent tendency to irritability.

In the following case, where the attacks were dependent on menstrual irregularity, the utility of combining the strychnine with remedies directed to the removal of the exciting cause will be apparent.

L. A., aged 17, a not unhealthy looking girl, has never menstruated properly; has been subject to epilepsy for four years, the interval never having been longer than one week; the attacks vary in intensity, a slight one being sooner followed by others. In this case, I commenced with one-sixteenth of a grain of strychnia twice daily, gradually carried up to the tenth, at the same time giving her aloes and myrrh, and assafœtida in pills twice daily. In this case, a perfect immunity from attacks commenced with the treatment, and has continued up to the present day, a period of nearly three months. Although the menstrual irregularity has not entirely ceased, it is very much ameliorated. I used, also, in this case, the cold effusion to the nape, coupling it at times with the application of warmth to the feet. This case, although not severe, is a type of a very prevalent form of the disorder, and shows how amenable such cases are to treatment. In another case, somewhat similar, which is still under treatment, I have the greatest benefit from the use of the bromide of potassium in combination with strychnia.

E. H., aged 14, a fair girl, partially paralyzed on the left side. When two years old had what was called brain fever, during which she was insensible for a length of time; recovered, but had a return about two years ago. Since the first attack she has been subject to continued attacks of *petit mal.*, sometimes five and six in the day. She turns slightly to the right; is slightly convulsed; sometimes is partially conscious during them, and tries to talk; sometimes she bites her tongue; her manner is silly, being fond of repeating lines of poetry, for which her memory is good. She has slight tenderness on pressure over the upper cervical vertebræ, and on percussing the atlas with the finger points she complains of pain at the epigastrium. The attacks sometimes come on during sleep. I will give here an extract from the diary kept by the parents. The patient came under my care in May, and I prescribed for her: ℞. Tinct. nucis vomicæ ℥iij, syr. aurantii ℥j. M., cap. ℥j bis in die ex aqua.

The following is a diary from May 29 up to the stoppage of the attacks:

May 29. Four fits in the day; two in the night.

30th. No fits in the day, but eight in the night, two of them being severe.

31st. One fit in the morning; eight again at night, but less severe.

June 1. No fit in the day; four at night.

2d. No fit in the day; five at night.

3d. No fit in the day; four at night.

4th. No fit in the day; three at night.

5th. No fit in the day; three slight ones at night.

6th. No fit in the day, and if any at night very slight.

7th. No fit in the day; only one observed at night.

8th. No fits day or night.

9th. No fits day or night.

10th. No fit.

11th. No fit.

12th. No fit.

And so on. Since this date she has continued almost entirely free from attacks, but few having occurred, and those of an altered and much slighter character, which yield readily to a slightly increased dose of the strychnine.

Although the following case is still under treatment, yet I think a slight sketch of it cannot fail to be interesting as exhibiting the effects of strychnine in very severe convulsive epilepsy, and as also showing what large doses of the drug may be given with impunity. This patient who has suffered for some years, is one of the severest cases of the disorder I have ever seen. I commenced treating him on the 15th June last, and as the case is still under treatment, I will merely give a comparative table of the number of his attacks during May of the present year and July. During the former month, he was under no treatment of any kind. During July, he was taking strychnine in the doses appended to the table. The attacks, which occurred almost exclusively at night, were most violently convulsive. They were much influenced by atmospheric changes, heavy thundery weather invariably increasing both their number and severity. Thus July would, under ordinary circumstances, be his most unfavorable month. In addition to the strychnine, during part of the month, he was using cold affusion to the nape and ice to the occiput during the night.

No Treatment.

May 1,	1867,	----	2 fits	May 17,	1867,	----	1 fit
" 2,	"	----	1	" 18,	"	----	0
" 3,	"	----	2	" 19,	"	----	0

"	4,	"	3	"	20,	"	0
"	5,	"	2	"	21,	"	1
"	6,	"	3	"	22,	"	0
"	7,	"	2	"	23,	"	2
"	8,	"	2	"	24,	"	2
"	9,	"	1	"	25,	"	3
"	10,	"	0	"	26,	"	3
"	11,	"	2	"	27,	"	2
"	12,	"	2	"	28,	"	1
"	13,	"	4	"	29,	"	2
"	14,	"	3	"	30,	"	0
"	15,	"	3	"	31,	"	0
"	16,	"	3				

Under Strychnine.

			Fits.				Fits.	
July	1,	1867,	0	$\frac{1}{8}$ gr.	July	16, 1867,	3	
"	2,	"	1	very slight,	"	17, "	0	$\frac{1}{8}$ gr.
"	3,	"	1	very slight, no con.	"	18, "	0	
					"	19, "	0	
"	4,	"	0		"	20, "	0	
"	5,	"	0		"	21, "	0	
"	6,	"	0		"	22, "	0	
"	7,	"	1		"	23, "	0	
"	8,	"	2		"	24, "	0	
"	9,	"	0	$\frac{1}{8}$ gr.	"	25, "	0	
"	10,	"	0		"	26, "	0	
"	11,	"	0		"	27, "	1	
"	12,	"	0		"	28, "	1	
"	13,	"	0		"	29, "	0	
"	14,	"	1	$\frac{1}{12}$ gr.	"	30, "	0	
"	15,	"	0		"	31, "	0	

On July 14, owing to a misunderstanding, he only had $\frac{1}{12}$ of a grain instead of $\frac{1}{8}$. It will be seen that four fits followed in rapid succession. I think this table shows the power which strychnine possesses in restraining the epileptic attacks. I may add that, although so remarkably lessened in number, they were not at all increased in severity, but, on the contrary, were less convulsive. The above table gives the following results:

May.		July.	
No. of attacks.	Nights free.	No. of attacks.	Nights free.
51	7	11	23

It will be observed that during the latter half of the month, the dose of strychnine was as high as $\frac{1}{8}$ of a grain, taken twice

daily, and this without its producing the slightest sign of excitement or irritation. In combination with the strychnine, the patient is taking the infusion of digitalis.

In conclusion, I would reiterate the summing up of my last paper: "That in strychnine we possess a drug which will *always* control the excitability of the medulla oblongata and prevent convulsions, but that to cure the disease we must also remove the exciting cause.—*Medical Times & Gazette, Aug. 24, 1867, p. 201.—Braithwaite's Retrospect.*

Book Notices.

Atlas of Venereal Diseases. By A. CULLERIER, Surgeon to the Hospital Du Mida; Member of the Surgical Society of Paris; etc., etc., etc. Translated from the French, with notes and additions, by FREEMAN J. BUMSTEAD, M.D., Prof. of Venereal Diseases in the College of Physicians and Surgeons of New York. With about One Hundred and Fifty Beautifully Colored Figures on Twenty-Six Plates. Philadelphia: HENRY C. LEA. 1868. To be completed in five parts, $3 each.

This is one of the most elegantly published and valuable works that ha been reprinted and edited in this country, relating to the loathsome, though important, class of venereal diseases. The author and editor are alike men of experience and eminent ability; and we freely commend this product of their labors to the general patronage of the profession. Parts I and II are already in our bookstores.

The Diagnosis, Pathology, and Treatment of Diseases of Women, Including the Diagnosis of Pregnancy. By GRAILY HEWITT, M.D., London, F.R.C.P., Prof. Midwifery and Diseases of Women, University College, and Obstetric Physician to the Hospital, etc., etc. First American, from the Second London Edition, Revised and Enlarged. With 116 Illustrations. Philadelphia: LINDSAY & BLAKISTON. 1868.

This is a handsome octavo volume of 707 pages. It includes a consideration of all the diseases and accidents usually regarded as peculiar to the female sex, and is well adapted both as a text-book for students and as a work of reference for the practitioner. We have neither time nor space to speak of its contents in detail.

Electro-Physiology and Therapeutics: Being a Study of the Electrical and other Physical Phenomena of the Muscular and other Systems during Health and Disease, including the Phenomenon of Electrical Fishes. By CHARLES E. MORGAN, A.B., M.D. New York: WM. WOOD & Co. 1868.

This is certainly one of the most important works of a scientific character, that has been issued from the American Press. It contains 714 pages, closely printed; and presents the reader with a complete review of all that is known in relation to electricity and its connection with the phenomena of living matter in health and disease. It merits a place in the library of every physician and cultivator of the natural sciences.

A Treatise on General Pathology, and its Relations to Practical Medicine. By CHARLES L. CARTER, M.D., Honorary Member of the St. Louis Medical Society; lately Surgeon in U.S. Army. St. Louis: GEORGE KNAPP & Co. 1867.

This is an octavo volume of 149 pages, on fair type and paper. It embraces a discussion of the topics usually included under the head of general pathology. The special merits of the work we shall examine more carefully hereafter.

Lectures on the Causes, Pathology, and Treatment of Joint Diseases. Delivered at the McGill University Medical College, Montreal, Canada. By LOUIS BAUER, M.D., M.R.C.S., Eng., Prof. of Anatomy and Clinical Surgery, etc., etc., etc. Reprinted from the Canada Medical Journal. New York: WM. WOOD & Co., 61 Walker Street. 1868. Pp. 96.

This is an octavo volume, well illustrated with cuts. It is just what its title indicates, namely, a monograph on the causes,

pathology, and treatment of diseases of the joints. The author is an independent thinker, thoroughly conversant with his subject, theoretically and practically. Hence, his work can be read with pleasure and profit both by students and practitioners.

Annual Abstract of Therapeutics, Materia Medica, Pharmacy, and Toxicology, for 1867; followed by an Original Memoir On Gout, Gravel, and Urinary Calculi, by A. BOUCHARDAT, Prof. of Hygiene to the Faculty of Medicine, Paris; etc., etc., etc. Translated and Edited by M. J. DE ROSSET, M.D., Adjunct to the Professor of Chemistry in the University of Maryland, etc., etc. Philadelphia: LINDSAY & BLAKISTON. 1868.

This is a duodecimo volume of 314 pages, neatly bound. Its contents are well indicated by the above title. It will be found very useful to both physicians and druggists.

Felix Von Niemeyer's Clinical Lectures on Pulmonary Phthisis. Translated, by permission of the Author, from the Second German Edition, by J. L. PARKE. New York: MOORHEAD, SIMPSON, & BOND. 1868.

For sale by the Western News Co., Chicago.

Editorial.

MEDICAL SOCIETY MEETINGS.—The Indiana State Medical Society will meet at Indianapolis on Tuesday, May 19th, 1868.

The Illinois State Medical Society holds its next meeting in Quincy, commencing May 19th, 1868.

The Military Tract Medical Association holds its next meeting at Kewanee, on Tuesday, May 12th, 1868.

RICHMOND MEDICAL JOURNAL.—This excellent monthly medical periodical, an advertisement of which will be found in our advertising columns, can be furnished to the subscribers of the EXAMINER for $3.00 per annum.

SUMMER TEACHING.—The Chicago Medical College has an excellent class of students attending the summer reading and clinical course of instruction.

HOMŒOPATHY AND THE MICHIGAN UNIVERSITY.—It is understood that the Board of Regents of Michigan University have finally accepted the appropriation of money by the Legislature of that State, which was made on the condition that a Chair of Homœopathy should be established as a part of the medical department of the University. This action has caused a part of the medical faculty to resign, and will probably break up the medical department entirely, or at least destroy all its importance. If it results in nullifying the medical department at Ann Arbor, and the establishment of an independent medical college in Detroit, where clinical instruction can be made a part of the regular course, it will be a positive benefit to the profession and to the people of that State.

If the remaining members of the present medical faculty in the University resign, it will be impossible for the Regents to fill their places in connection with their homœopathic projects; because neither the University nor its diploma will be longer recognized by other medical colleges and associations.

MEDICAL COLLEGE GRADUATES.—The following list shows the number of graduates, at the close of the last annual term of instruction, in most of the medical colleges in the United States:

Jefferson Medical College, Philadelphia,	159
Med. Department of University of Penn., Phila.,	153
Rush Medical College, Chicago,	116
Bellevue Hospital Medical College, New York,	111
College of Physicians and Surgeons, "	104
Med. Dep't of University of Nashville, Tenn.,	85
Med. Department of New York University,	82
Med. Department of University of Michigan,	76
Medical College of Ohio, Cincinnati,	54
Chicago Medical College,	50
Massachusetts Medical College, Boston,	48

Med. Dep't of University of La., New Orleans,	46
St. Louis Medical College,	46
Med. Dep't of University of Louisville, Ky.,	46
Buffalo Medical College, N.Y.,	40
Miami Medical College, Cincinnati,	29
New Orleans School of Medicine,	28
Medical College of South Carolina,	27
Charity Hospital Medical College, Cleveland,	27
Med. Dep't Harvard University, Boston,	26
Missouri Medical College, St. Louis,	26
Tolland Medical College, San Francisco,	13
Cincinnati College of Medicine and Surgery,	10

There are several other medical colleges in different parts of the country, not included in the above list. It is probable that the entire list would make the total number of regular medical college graduates in the United States, for the year 1868, about 1525.

Money Receipts to April 23d.—Drs. M. T. Darling, $6; W. H. Frazer, 3; Edmund Andrews, 3; W. H. Cook, 3; L. Humphreys, 3; F. L. Flanders, 3; W. P. Welsh, 3; S. H. Bottomly, 3; James Brewster, 6; Martin I. Whitman, 3; Orin Peak, 3; E. Dyson, 3; James Miner, 3; C. C. Crocker, 3; Mary H. Thompson, 3; H. H. Deming, 3.

FLUID EXTRACTS.

The attention of physicians has been turned of late to the general unreliability, and, sometimes, entire worthlessness of the fluid extracts in common use. This inefficiency may be due to the quality of the drug used, or the dishonesty of the manufacturer, but is in most cases, more probably, the result of the mode of preparation. The trouble seems to lie with those drugs whose medicinal effect depends on volatile principles, which would be envolved on application of even a low degree of heat.

Here then is the difficulty that the use of heat renders the extract valueless, because it deprives it of its only valuable ingredient. To dispense then with this dangerous agent is the effort of every manufacturer.

Different makers have adopted different methods, involving the use, however, of more or less heat, but none have achieved the result desired, till Dr. Samuel P. Duffield, of Detroit, an-

nounced his process in which he avoids the use of any heat whatever. The following is a short description of this valuable improvement:

"The drug is ground to a coarse powder and placed dry in an iron cylinder. The air is then exhausted by means of an air pump, causing the pores of the drug to give up the air contained in them, and permit the entrance of the menstrum, which is forcibly sucked in through a syphon tube. The effect of this is to impregnate the menstrum with the entire soluble and medicinal properties of the drug, and thus rendering after concentration with the aid of heat unnecessary."

The theory of the above process seems clearly superior to others in use, and the practical workings of it, produce results as we would anticipate.

Many of our leading physicians, among whom we might mention Professors Weber and Scott, of Cleveland, Professor Armor, of Michigan University, Professor Hildreth, of Chicago, have tried fluid extracts made according to Dr. Duffield's process, by Duffield, Parke & Co., of Detroit, with a view to thoroughly test their merits, and have pronounced them decidedly superior to others in use.

In general appearance they differ much from the dark-colored preparations to which we are accustomed. The standard is that of the U. S. Pharmacopœa, sixteen troy ounces of the drug to the fluid pint.—*The Cincinnati Lancet and Observer.*

Gonorrhœa.—*Starch Injections.*—Finely powdered starch mixed with lukewarm water, so as to obtain a fluid of the substance of cream, but thin enough to allow of injection, forms a most successful injection in cases of gonorrhœa, especially after the inflammatory stage is over.—[M. Luc.]—*Braith. Ret.*

Eczema.—*Iodide of Lead.*—Iodide of lead is a remedy of great value in eczema. It should be applied in the form of an ointment, 12 grains to the ounce, with 1 drachm of glycerine, and 40 minims of chloroform, to relieve the itching. Another formula is the following: Iodide of lead, 20 grains; simple ointment, 7 drachms; glycerine, 1 drachm. The ointment of iodide of lead of the present pharmacopœia is too strong for cases of chronic eczema or psoriasis; it contains 62 grains to the ounce; whereas, from a-fifth to a-fourth of that quantity is sufficient, and more useful than the pharmacopœial strength. The use of constitutional treatment must be combined with this.—[Dr. W. T. Belcher.]—*Braithwaite's Retrospect.*

ANNUAL MEETING OF THE BOARD OF HEALTH.

ELECTION OF OFFICERS.

REPORT OF THE HEALTH OFFICER FOR THE YEAR ENDING APRIL 1, 1868.

The Annual Meeting of the Board of Health was held on the 6th of April, 1868, Mayor Rice in the chair, and present, Commissioners Rauch, Wagner, Giles, Hoard, and Reynolds.

On motion of Commissioner Reynolds, the Mayor was unanimously reëlected the President of the Board.

The Committees on finance, ordinances, sanitary matters, and streets and alleys, were filled with the same members as on last year. They are as follows:—

Sanitary Committee.—Dr. Rauch, Dr. Johnson, Dr. Wagner.

Finance Committee.—Messrs Hoard, Giles, and Rauch.

Committee on Ordinances.—Messrs Johnson, Hoard, and Reynolds.

Committee on Streets and Alleys.—Messrs Giles, Reynolds, and Hoard.

On motion, Ambrose Burnham was reëlected health officer until April 1, 1869, and J. S. Kline was reëlected secretary of the Board for the same period.

Applications from S. W. Lee, G. W. Bonham, and E. Wood, for situations as sanitary policemen, were referred to the committee on appointments.

The following is the report of A. Burnham, health officer, for the year ending March 21, 1868:—

HEALTH OFFICE, CHICAGO, *April 1, 1868.*

To the Honorable the Board of Health of the City of Chicago:

GENTLEMEN,—I have the honor to present the following report for the last municipal year, of work done from the first day of April, 1867, to the first day of April, 1868:—

NUMBER OF NUISANCES REPORTED AND ABATED ON NOTICES.

Ashes and rubbish on streets, yards and alleys,	1,514	Filthy houses,	301
Garbage,	1,313	Filthy hog-pens,	65
Manure piles,	10,653	Filthy hide stores and cellers,	45
Full privies,	8,192	Filthy privies,	1,722
Filthy alleys and areas	4,079	Filthy premises,	47
Filthy butcher shops,	6	Filthy packing houses,	7
Filthy basements,	63	Filthy soap factories,	3
Filthy cellars,	63	Filthy stables,	1,117
Filthy catch basins,	6	Filthy sinks,	735
Filthy cesspools and cisterns	135	Filthy slaughter-houses,	5
Filthy drains,	534	Filthy tanneries,	5
Filthy distilleries,	6	Filthy vacant lots,	326
Filthy gutters on streets & alleys,	1,457	Filthy water closets,	348
Filthy grocery stores,	10	Total,	32,808

Number of notices served to connect premises with sewers, ---------- 1,859
Premises connected, -------- 1,097 | New privy vaults built, -------- 853
Total number of all notices served, ---------- 35,520

Loads of ashes removed, 7,247, about equally divided among all the divisions of the City:—

Loads of ashes removed from the South Division, ---------- 6,318
Loads of ashes removed from the West Division, ---------- 750
Loads of ashes removed from the North Division, ---------- 698

Total loads of ashes removed, ---------- 7,769
Barrels of rotten apples, potatoes, eggs, fish, and pickles, ---------- 1,342
Baskets and boxes of decayed peaches, grapes, oranges, and lemons, -- 773
Barrels and bags of damaged poultry removed, ---------- 36

Number of dead animals removed by City scavengers:—

Horses,	148	Hogs,	49	Chickens,	4090
Sheep,	67	Dogs and cats,	7093		
Cows,	24			Total,	12,281

Main sewers disinfected,	3	Sloughs and slips disinfected,	35
Private sewers disinfected,	1735	Total,	1773
Miles of streets and alleys disinfected,	1146	Houses disinfected,	274
		Privies disinfected,	2150

SMALL-POX.

The cases of small-pox in the City during the year were as follows:—

1st Ward	27	10th Ward	44
2d Ward	112	11th Ward	90
3d Ward	97	12th Ward	43
4th Ward	58	13th Ward	13
5th Ward	153	14th Ward	43
6th Ward	104	15th Ward	80
7th Ward	170	16th Ward	36
8th Ward	74		
9th Ward	46	Total,	1193

The cases as reported by months were as follows:—

April,	28	August,	36	December,	157
May,	20	September,	23	January,	228
June,	39	October,	47	February,	247
July,	47	November,	137	March,	184

VARIOLOID.

The varioloid cases in the several wards were as follows:—

1st Ward	22	7th Ward	86	13th Ward	2
2d Ward	48	8th Ward	48	14th Ward	31
3d Ward	56	9th Ward	17	15th Ward	29
4th Ward	34	10th Ward	21	16th Ward	22
5th Ward	35	11th Ward	35		
6th Ward	62	12th Ward	10	Total,	528

The total number of varioloid and small-pox cases in the City for the year was 1721.

The total number of patients removed to the small-pox hospital was 303.

The number of houses under sanitary inspection, where small-pox patients reside, were 1488.

The number of summons served for violation of the health ordinances was 1551.

The amount of fines assessed for the year was $5576,20.

A. BURNHAM, Health Officer.

Mortality Report for the Month of March:—

CAUSES OF DEATH.

Accident, drowned,	2	Dysentery	1	Liver, abscess of	1
Accident, fall	1	Encephalites	2	Liver, inflammation of	1
Accident, fall by horse	1	Enteritis	1	Lungs, congestion of	3
Accident, gunshot	2	Epilepsy	2	Lungs, œdema of	1
Accident, suffocation	1	Erysipelas	1	Lungs, paralysis of, following congestion of the brain	1
Accident, C.B.&Q.RR.	1	Exhaustion	1	Malformation	1
Anæmia	1	Exposure	1	Measles	21
Angina	1	Endometritis	1	Measles, following the	1
Apoplexy	6	Fever, intermittent	1	Meningitis	5
Atelectasis, pulmenium	1	Fever, puerperal	3	Meningitis, cerebro-spinal	1
Bowels, inflammation	5	Fever, puerperal and brondirlis	1	Meningitis, tuberculous	4
Brain, congestion of	3	Fever, remittent	1	Nephritis	4
Brain, disease of	2	Fever, scarlet	7	Œdema glottitis	2
Brain, effusion,	1	Fever, typhoid	10	Old Age	1
Brain, inflammation	3	Fever, typhoid with spinal fistula	1	Paralysis	8
Brain, softening of,	1	Fever, typhus	2	Peritonitis	2
Births, still & prematu.	45	Fungus hemadotes	1	Pericarditis	5
Bright's disease	2	Gangrene	1	Phthisis pulmonalisis	1
Bronchitis	7	Gastritis	1	Pleurisy	42
Bronchitis, capillary	1	Gastritis, chronic	1	Pneumonia	2
Bronchitis, vessecular,	1	Gastrœntrites	1	Pneumonia, broncho	20
Cancer	1	Hemorrhage, umbilical	1	Pneumonia, pleuro	1
Cancer, of face	1	Heart, disease of	3	Pneumonia, typhoid	2
Cancer, of intestines	1	Heart, fatty degenera.	1	Pneumonia, following Measles	2
Cancer, of stomach	2	Heart, organic disease	1	Pyemia	3
Cancer, of uterus	3	Heart, volvular disease	2	Rheumatism	1
Cholera infantum	1	Hypertrophy of heart	2	Scrofula	1
Convulsions	42	Hemiplegia	1	Small-pox	1
Convulsions, puerperal with sanguineous effusion	1	Hepatitis	2	Suicide	35
Croup	9	Hydrocephalus	3	Stomach, inflammation	2
Croup, membranous	2	Hydrocephalus, acute	3	Tabes mesenterica	1
Debility	5	Hydrocephalus, chronic	1	Teething	4
Delirium tremens	3	Inanition	1	Uræmia	1
Deficient vitality	1	Indigestion	1	Varioloid	1
Diarrhœa	4	Kidneys, disease of	1	Whooping-cough	2
Diphtheria	4	Kidneys, inflammation	1		1
Dropsy	2	Laryngitis	1		
Dysentery, following Measles	1	Laryngitis, chronic	1	Total	379
		Liver, atrophy of	1		

Deaths in March 1868, 379 | Deaths in March 1867, 280 | Increase, 99

Deaths in February, 1868, 423 | Decrease, 44

AGES.

Under 5	190	40 to 50	22	90 to 100	0
5 to 10	31	50 to 60	18	100 to 110	0
10 to 20	16	60 to 70	10	Unknown	0
20 to 30	39	70 to 80	13		
30 to 40	38	80 to 90	2	Total	379

Males, 203 | Females, 176 | Total, 379

Single, 278 | Married, 101 | Total, 379

White, 373 | Colored, 6 | Total, 379

NATIVITY.

Chicago	175	Holland	3	Prussia	4
Other parts U. S.	73	Ireland	37	Scotland	2
Bohemia	1	Island of Jamaica	1	Sweden	1
Canada	4	Norway	7	Unknown	2
England	14	New Brunswick	1		
Germany	54			Total	379

DEATHS BY SMALL-POX.

For the Month of March, 1868.

2d Ward	2	12th Ward	2
3d Ward	3	14th Ward	1
4th Ward	1	15th Ward	3
5th Ward	8	Lake Hospital	7
7th Ward	4	Unknown	1
8th Ward	1		
11th Ward	2	Total,	35

Varioloid, 14 Ward, 2

MORTALITY BY WARDS FOR THE MONTH.

Ward.	Mortality.	Pop. in 1866.	One death in		Ward.	Mortality.	Pop. in 1866.	One death in	
1	7	9,668	1,381	3-7	14	17	12,108	712	1-4
2	15	12,985	865	2-3	15	38	15,766	414	9-10
3	24	15,738	655	3-4	16	33	14,912	451	7-8
4	30	10,884	362	4-5	County hosp.	5			
5	24	9,610	400	5-12	Hos Wom. Chi.	0			
6	24	10,680	440	4-5	Soldier's Ho.	1			
7	30	18,755	625	1-6	Home of the Friendl's,	0			
8	23	10,429	453	10-23	Marine hos.,	1			
9	12	13,940	1 161	2-3	Mercy hos.,	5			
10	17	11,416	671	1-2	St. Luke's hos.	0			
11	30	12,924	430	4-5	St. Jose. asyl.	3			
12	18	12,695	705	1-4	Lake Hosp.,	7			
13	14	8,188	584	6-7					

Total, 379

The Report was ordered placed on file.

Commissioner Reynolds, from the committee on appointments, recommended the appointment, as sanitary police inspectors, of H. N. Alexander and James E. Newland. The report was adopted, and the appointments made.

The Board then adjourned until 10 o'clock on Monday, when the report of expenditures and the annual mortality report will be rendered.

ILLINOIS STATE MEDICAL SOCIETY.—The next Annual Meeting of the Illinois State Medical Society will be held in the City of *Quincy*, commencing on the *Third Tuesday* in May, 1868. It is very desirable that the profession throughout the Stateshould be well represented.

N. S. DAVIS,

March 26th, 1868. *Permanent Sec'y.*

INFLUENCE OF ALPINE CLIMATES ON PULMONARY CONSUMPTION.—Some startling cases are related, showing the beneficial influence of Alpine climates on pulmonary consumption. One patient lost his cough and gained flesh on the Peruvian Andes, and, after a subsequent relapse at New Orleans, entirely recovered his health on the table-land of Mexico. A second patient, after spending a winter at Bordeaux and Cannes without entirely losing his cough, and where he still continued to lose weight, went to the Righi, in Switzerland, where he lived almost entirely in the open air and drank about two quarts of milk a-day. He recovered his health perfectly, so far as his own sensations went. The third case went to Davos am Platz, and recovered. The treatment adopted there by Drs. Spengler and Unger, is the use of much milk and light nourishing food; a moderate amount of wine, principally the red wine of the Valteline; and graduated exercise, first on level, later up hill. The cold douche is likewise, in many cases, used with advantage. It is probable that in addition to the exhilaration and increased inclination to exercise produced by the cooling, refreshing atmosphere and the complete change in the manner of living, that the increased exercise of the respiratory organs, the fuller, deeper inspirations necessitated by the rarity of the atmosphere influences the respiratory circulation and all the processes of nutrition.—[Dr. H. Weber.]—*Braithwaite's Ret.*

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CHICAGO MEDICAL COLLEGE.

The regular Annual Lecture Term in this Institution will commence on the first Monday in October, and continue until the first Tuesday in March following. Clinical Lectures *daily* throughout the term.

FACULTY.

N. S. DAVIS, M.D., Professor of Principles and Practice of Medicine, and of Clinical Medicine.

W. H. BYFORD, M.D., Professor of Obstetrics and Diseases of Women and Children.

EDMUND ANDREWS, M.D., Professor of Principles and Practice of Surgery, and of Military Surgery.

JOHN E. DAVIES, A.M., Lecturer on Organic Chemistry and Toxicology.

H. A. JOHNSON, M.D., Professor of Diseases of the Chest.

J. S. JEWELL, M.D., Professor of Descriptive Anatomy.

J. H. HOLLISTER, M.D., Prof. of Gen. Pathology and Public Hygiene.

RALPH N. ISHAM, M.D., Professor of Surgical Anatomy and Operations of Surgery.

M. O. HEYDOCK, M.D., Professor of Materia Medica and Therapeutics.

JOHN E. DAVIES, A.M., Lecturer on Inorganic Chemistry.

R. J. PATTERSON, M D., Professor of Medical Jurisprudence.

DANIEL J. NELSON, M.D., Professor of Physiology and Histology.

J. M. WOODWORTH, M.D., Demonstrator of Anatomy.

E. O. F. ROLLER, M.D., Assistant to the Professor of Obstetrics.

S. A. McWILLIAMS, M.D., Assistant to the Professor of Anatomy.

For the Winter Term, admitting to all the Lectures in the College, ... $50.00
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Matriculation Fee, ... 5.00
Dissecting Ticket, ... 5.00
Hospital Ticket, ... 6.00

The Summer Reading and Clinical Term commences on the second Tuesday in March, and continues until the first Tuesday in July; and is free to all matriculated Studens of the College. Boarding, $3.50 to $4.50 per week. For further information, address

E. ANDREWS, *Sec'y of the Faculty.*